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A comprehensive statistical report containing a wealth of employment and educational data. Covers the profession--characteristics, minorities, unemployment, professional training, age; employment; salaries; education; supply and demand. Of particular interest to industrial managers and personnel specialists, academic administrators and faculty members, career counselors, and young men and women contemplating--or preparing for--a career in chemistry.

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*Professionals in Chemistry 1976* containing a special detailed report of employment in the chemical industry.
*Professionals in Chemistry 1975* containing a special report on salaries of women chemists and chemists' salaries compared with those of other professions.
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75 pages. (1980) $25.00

A1250-2

# 1980 SURVEY REPORT

# STARTING SALARIES AND EMPLOYMENT STATUS OF CHEMISTRY AND CHEMICAL ENGINEERING GRADUATES

This report was prepared by the
ACS Office of Manpower Studies.

American Chemical Society
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## ACKNOWLEDGMENTS

Each year the American Chemical Society surveys chemistry and chemical engineering graduates to determine trends in starting salaries and employment status. John Robert Jones, Harry Foxwell, and Joanna Chin of the Office of Manpower Studies conducted this year's survey. Joanna Chin wrote the necessary computer programs and assembled this report.

Robert K. Neuman, Head
Department of Professional
Relations and Manpower Studies

## SUMMARY OF FINDINGS

### SALARIES

Mean starting salaries paid inexperienced chemists have increased since 1979 for graduates at all three levels. Even when salaries are deflated in consideration of increased prices, inexperienced 1980 recipients of the master's degree or the doctorate in chemistry began work at salaries that were greater than those paid new graduates in 1979. At the BS level, however, the mean starting salary increased only 3%, far less than did the official consumer price index, which was 12.6% more in August 1980 than in August 1979. Table 1 shows means and selected percentiles of starting salaries paid inexperienced chemistry graduates in 1979 and in 1980. The 1980 means were

$14,580 for the BS, up 2.6%, or in constant dollars -9.1%
$19,201 for the MS, up 17.1%, or in constant dollars +4.0%
$25,285 for the PhD, up 17.3%, or in constant dollars +4.1%

Why starting salaries increased so much less for bachelor's level graduates than for graduates with advanced degrees is unclear.

Chemical engineering graduates, especially bachelor's degree recipients, enjoy much larger starting salaries than do chemists with corresponding degrees. This year, at the bachelor's degree level, the gap between chemists' salaries and chemical engineers' salaries widened. At the master's degree level, starting salaries increased by more dollars in chemical engineering, but they increased by a greater percent in chemistry. At the doctoral level though, the gap narrowed. Table 2 shows means and selected percentiles of starting salaries paid chemical engineers in 1979 and 1980. The 1980 means were

$21,414 for the BS, up 9.9%, or in constant dollars -2.4%
$23,689 for the MS, up 14.9%, or in constant dollars +2.0%
$27,499 for the PhD, up 8.6%, or in constant dollars -3.6%

(See tables 1 and 2 for more detailed information regarding starting salaries.)

Sometimes comparing salaries for two consecutive years requires an adjustment because a changing fraction of graduates enter academic employment and therefore report annual salaries based on an academic year rather than on a calendar year. This year, however, such adjustments would not affect estimated increases in chemical engineering at any degree level nor in chemistry except at the bachelor's degree level. Because a larger fraction of this year's BS graduates accepted employment at academic institutions, the adjusted increase would be 3.3%, slightly more than the unadjusted figure, 2.6%.

## POSTDOCTORAL FELLOWSHIPS

The survey results regarding employment status for new chemistry PhDs contain some welcome news for chemists. A smaller fraction of this year's graduates than of last year's are postdoctoral fellows. The decrease in this fraction probably means that graduates who wanted non-academic positions were better able to obtain the employment they sought and, thus, were not forced to accept postdoctoral fellowships as stopgap employment while continuing to pursue more agreeable positions. Of course, every year many graduates do eagerly seek postdoctoral fellowships because tradition requires that a chemist who aspires to an academic career begin with one to three years as a postdoctoral fellow. Four or five years ago, however, many of the postdoctoral fellows in chemistry were merely waiting for appropriate non-academic employment. In 1975 and 1976 more than 47% of PhD chemists who responded to this survey entered postdoctoral positions. The fraction decreased in 1977 and again in 1978, when it reached 33%. In 1979, though, the fraction increased to 38%. Table 3, which includes employment status for experienced and inexperienced respondents together, shows that in 1980 the fraction was back down to 29%. So the chemistry postdoctoral fellowship may have returned to its traditional function of providing training, instead of merely providing temporary employment.

## ADVANCED STUDY

Nearly 70% of the graduates who received bachelor's degrees in chemistry planned to be in school in the fall. at least part-time. Of the chemistry graduates studying full-time, about two-fifths are pursuing advanced degrees in chemistry. Another two-fifths are studying medicine or dentistry.

Among those who receieved bachelor's degrees in chemical engineering and are studying full-time, 66% study chemical engineering, and 14% study medicine or dentistry. (See tables 4 and 5)

## COOPERATIVE EDUCATION

This year's survey questionnaire included several questions concerning cooperative education, but this report does not contain any analysis of data on that subject. Instead, the ACS Office of Cooperative Education is preparing a separate report, which will be available at a later date.

## INTERPRETING SURVEY RESULTS

The numbers contained in these tables are estimates, derived from a sample rather than from a complete census. Thus, although they are the best estimates available, they are imperfect. Reasonable caution will prevent rash interpretations. An example of an estimate that demands caution is the difference between men's and women's salaries. Among inexperienced bachelor's level chemical engineers, women had greater mean salaries than did men, but the difference is small and is not enough to support a statement that the mean for all women, including those not in the sample, is greater than that for all men. The technical notes of this report give some guidance as to the degree of precision associated with various statistics in this report.

Table 1

STARTING YEARLY SALARIES OF INEXPERIENCED FULL-TIME EMPLOYED CHEMISTRY GRADUATES

by Degree: Summer of 1979 and Summer of 1980

| Salaries | DEGREE LEVEL | | | | | |
|---|---|---|---|---|---|---|
| | Bachelor's | | Master's | | Ph.D. | |
| | 1979 | 1980 | 1979 | 1980 | 1979 | 1980 |
| 90th Percentile | $17,500 | $19,200 | $20,000 | $23,700 | $25,300 | $29,400 |
| 75th Percentile | 16,200 | 17,700 | 18,300 | 21,400 | 24,500 | 27,700 |
| 50th Percentile | 14,500 | 15,000 | 17,000 | 20,000 | 23,000 | 26,400 |
| 25th Percentile | 12,000 | 12,000 | 15,000 | 17,200 | 20,400 | 24,000 |
| 10th Percentile | 10,400 | 10,000 | 12,000 | 13,600 | 14,400 | 17,500 |
| Mean | 14,215 | 14,580 | 16,396 | 19,201 | 21,563 | 25,285 |
| Count | 442 | 385 | 85 | 44 | 150 | 94 |
| Standard Deviation | 2,839 | 3,753 | 3,191 | 4,042 | 4,315 | 6,050 |

Table 2

STARTING YEARLY SALARIES OF INEXPERIENCED FULL-TIME EMPLOYED CHEMICAL ENGINEERING GRADUATES

by Degree: Summer of 1979 and Summer of 1980

| Salaries | DEGREE LEVEL | | | | | |
|---|---|---|---|---|---|---|
| | Bachelor's | | Master's | | Ph.D. | |
| | 1979 | 1980 | 1979 | 1980 | 1979 | 1980 |
| 90th Percentile | $20,600 | $22,800 | $22,900 | $25,500 | $27,800 | $32,700 |
| 75th Percentile | 20,100 | 22,200 | 21,600 | 24,800 | 26,500 | 30,300 |
| 50th Percentile | 19,800 | 21,600 | 21,000 | 23,900 | 25,400 | 28,800 |
| 25th Percentile | 19,200 | 21,000 | 20,000 | 22,900 | 24,300 | 22,800 |
| 10th Percentile | 18,300 | 20,000 | 19,000 | 21,000 | 22,000 | 20,800 |
| Mean | 19,480 | 21,414 | 20,609 | 23,689 | 25,327 | 27,499 |
| Count | 727 | 545 | 67 | 44 | 33 | 25 |
| Standard Deviation | 1,830 | 1,927 | 3,137 | 1,604 | 2,531 | 4,339 |

Table 3

POSTGRADUATION STATUS OF CHEMISTRY AND
CHEMICAL ENGINEERING GRADUATES: Summer 1980

| Major and Employment Status | Bachelor's | Master's | Doctorates |
|---|---|---|---|
| CHEMISTRY | | | |
| Full-time employed: | | | |
| In chemistry or chemical engineering | 26.1% | 43.1% | 62.8% |
| Outside chemistry or chemical engineering | 8.5 | 6.0 | 3.6 |
| Postdoctoral/grad. asst./other fellowship | 27.9 | 39.5 | 29.6 |
| Unemployed and seeking full-time employment | 9.8 | 4.8 | 3.6 |
| Unemployed and not seeking full-time employment | 27.7 | 6.6 | 0.5 |
| Total | 100.0 | 100.0 | 100.0 |
| Number of responses | 1,557 | 167 | 196 |
| CHEMICAL ENGINEERING | | | |
| Full-time employed: | | | |
| In chemistry or chemical engineering | 71.4% | 80.4% | 94.7% |
| Outside chemistry or chemical engineering | 7.7 | 2.2 | - |
| Postdoctoral/grad. asst./other fellowship | 11.6 | 12.0 | - |
| Unemployed and seeking full-time employment | 5.1 | 3.3 | 2.6 |
| Unemployed and not seeking full-time employment | 4.2 | 2.2 | 2.6 |
| Total | 100.0 | 100.0 | 100.0 |
| Number of responses | 818 | 92 | 38 |

Table 4

PLANS FOR ADVANCED FURTHER STUDIES OF B.S. CHEMISTRY AND CHEMICAL ENGINEERING GRADUATES: Fall 1980

| | Chemistry | Chemical Engineering |
|---|---|---|
| Plan further studies | 70.3% | 40.9% |
| Full-time | (57.9) | (15.3) |
| Part-time | (12.4) | (25.6) |
| Have no plans or no response | 29.7 | 59.1 |
| Total | 100.0 | 100.0 |
| Number of responses | 1,626 | 824 |

Table 5

FIELD OF ADVANCED FURTHER STUDIES OF B.S. CHEMISTRY AND CHEMICAL ENGINEERING GRADUATES WHO PLAN FURTHER STUDIES: Fall 1980

| Field of Study | Chemistry | Chemical Engineering |
|---|---|---|
| Full-time | | |
| Chemistry or biochemistry | 39.6% | 0.8% |
| Chemical engineering | 4.2 | 66.1 |
| Medicine or dentistry | 40.5 | 13.7 |
| Business or management | 2.1 | 4.8 |
| All others | 13.6 | 14.6 |
| Total | 100.0 | 100.0 |
| Number of responses | 931 | 124 |
| Part-time | | |
| Chemistry or biochemistry | 42.3% | 1.0% |
| Chemical engineering | 8.2 | 30.3 |
| Business or management | 19.9 | 53.4 |
| All others | 29.6 | 15.3 |
| Total | 100.0 | 100.0 |
| Number of responses | 196 | 208 |

## SCOPE AND METHOD

### OBJECTIVES

The 1980 Starting Salary Survey is the 29th in the series of annual surveys now conducted by the Office of Manpower Studies of the American Chemical Society. Summaries of the results of these surveys appear annually in the "Chemical Careers" edition of Chemical and Engineering News, this year published on October 20.

The primary objective of the survey is to gather data on the starting salaries and occupational status of new chemists and chemical engineers who graduated during the 1979-80 academic year. This year's survey covers bachelor's, master's, and doctoral degree recipients. In addition, the survey provides information on graduates' sex, citizenship, and minority classification.

### METHOD OF COLLECTION AND TIMING OF SURVEY

Chemistry and chemical engineering departments provided names and addresses of students who graduated between July 1, 1979 and June 30, 1980. The cooperating departments were the chemistry departments approved by the ACS, and the chemical engineering departments approved by the American Institute of Chemical Engineers and the Engineer's Council for Professional Development.

During the summer of 1980, the Office of Manpower Studies mailed questionnaires to those graduates who had U.S. addresses and graduation dates from September, 1979 through June, 1980. Summer graduates were excluded from the mailing because many of them had twelve months' experience by the time the survey was conducted.

### EXTENT OF COVERAGE

Survey questionnaires were mailed by bulk mail to 10,146 graduates. Past experience has shown that approximately ten percent of the questionnaires probably were not delivered because the addresses provided were not adequate to assure delivery. The questionnaires were mailed between July 28 and August 16. By the cutoff date of September 29, the Office of Manpower Studies had received 3332 responses, 3263 of them usable.

The table below contains estimates of the numbers of chemistry and chemical engineering gradutes in 1980.

Projected Number of Degrees in
Chemistry and Chemical Engineering, 1979-80

| | Bachelors | Masters | Doctorates |
|---|---|---|---|
| Chemistry | 11,800 | 1,820 | 1,520 |
| Chemical Engineering | 6,450 | 1,210 | 310 |

The survey respondents represent about 13 percent of all 1980 chemistry graduates and about 12 percent of all 1980 chemical engineering graduates. No effort was made to examine the characteristics of graduates from departments that did not participate in the survey or of those graduates who did not mail back completed questionnaires.

DEFINITIONS

The questionnaire appears at the end of this report. Responses to Question I on post-graduation status were edited to eliminate multiple responses and to reflect as accurately as possible the employment status of the respondent.

The term "inexperienced" as used in the tables refers to those who have 12 months or less of prior professional work experience. Salary tables are based only on salaries of those who found full-time employment in chemistry or chemical engineering. Postdoctoral salaries are analyzed separately.

The Technical Notes present methods for estimating sampling error and also explain certain discrepancies among some of the tables.

# GEOGRAPHIC REGIONS

PACIFIC

- Alaska
- California
- Hawaii
- Oregon
- Washington

MOUNTAIN

- Arizona
- Colorado
- Idaho
- Montana
- Nevada
- New Mexico
- Utah
- Wyoming

WEST NORTH CENTRAL

- Iowa
- Kansas
- Minnesota
- Nebraska
- North Dakota
- South Dakota

WEST SOUTH CENTRAL

- Arkansas
- Louisiana
- Oklahoma
- Texas

EAST NORTH CENTRAL

- Illinois
- Indiana
- Michigan
- Ohio
- Wisconsin

EAST SOUTH CENTRAL

- Alabama
- Kentucky
- Mississippi
- Tennessee

MIDDLE ATLANTIC

- New Jersey
- New York
- Pennsylvania

SOUTH ATLANTIC

- Delaware
- District of Columbia
- Florida
- Georgia
- Maryland
- North Carolina
- South Carolina
- Virginia
- West Virginia

NEW ENGLAND

- Connecticut
- Maine
- Massachusetts
- New Hampshire
- Rhode Island
- Vermont

# TECHNICAL NOTES

## DISCREPANCIES AMONG TABLES

Some pairs of tables contain totals that should be identical but are not. For example, two tables that present information about PhD respondents should show the same total number of PhDs. They might, however, show different totals. To illustrate, if one table groups the PhDs according to sex and the other groups them according to geographic region, the totals will differ unless the number who did not indicate their sex is the same as the number who did not indicate their geographic region.

## ESTIMATES OF MEDIAN SALARIES

Median salaries displayed within the cells of the salary tables are sample medians and are therefore subject to sampling error. This error may be quite large, especially when the number of respondents in the corresponding cell is small. Therefore, estimates for median salaries do not appear in any cells with fewer than 15 respondents.

## COMPARING SALARIES

Often questions arise concerning women's salaries as compared with men's, or chemists' salaries as compared with chemical engineers'. These and similar comparisons require caution.

Statistical tests should be performed to determine whether observed differences in salaries of various sample groups could be mere chance occurrences resulting from peculiarities of the samples. Whether a difference in salaries is "statistically significant" depends not only on the magnitude of the difference but also on the sample sizes and the magnitudes of the sample standard deviations.

Statistical tests of significance may be found in Numerical and Statistical Techniques, by J. H. Pollard, Handbook of Tables for Probability and Statistics, published by the Chemical Rubber Company, and in other similar texts.

## ESTIMATING SAMPLING ERROR FOR PERCENTS

Percents in this report are derived from the sample. If the entire population had received and returned questionnaires, most estimates would be somewhat different. How much different? Although this question does not have an exact answer, the table below does provide some guidance. To use the table, find the column headed by the percent (p) derived from the sample, and find the row appropriate for the sample size (n). (Approximations for p and n may be used.) Note

the number in that column and that row of the table. This number from the body of the table measures the precision with which the sample percent estimates the percent of the entire population. Specifically, if this procedure is applied repeatedly, about 95 times out of 100 the population percent will differ from the sample percent by no more than the amount shown in the table.

Approximate Sampling Errors for Percents

| n | p = 10% or 90% | p= 20% or 80% | p= 30% or 70% | p= 40% or 60% | p= 50% |
|---|---|---|---|---|---|
| 50 | 8.3% | 11.1% | 12.7% | 13.6% | 13.9% |
| 100 | 5.9 | 7.8 | 9.0 | 9.6 | 9.8 |
| 200 | 4.2 | 5.5 | 6.4 | 6.8 | 6.9 |
| 500 | 2.6 | 3.5 | 4.0 | 4.3 | 4.4 |
| 1000 | 1.9 | 2.5 | 2.8 | 3.0 | 3.1 |
| 2000 | 1.3 | 1.8 | 2.0 | 2.1 | 2.2 |
| 5000 | 0.8 | 1.1 | 1.3 | 1.4 | 1.4 |
| 10000 | 0.6 | 0.8 | 0.9 | 1.0 | 1.0 |

In Table B-4 (page 39) for example, 123 respondents classified as chemists indicated their highest degree as PhD, and their employment status as employed full-time in chemistry or chemical engineering. The percent of this group who are women is listed as 13.0 percent (p=13.0). A "95% confidence interval" for this percent may be approximated by taking n and p to be about 200 and 10%. The table shows an approximate sampling error of 4.2%. Hence, the 95% confidence interval is 8.8% to 17.2%. If 100 similar estimates were made at this "level of confidence," about 95 of the true population percents would be contained in their respective intervals.

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Table A-1

SALARIES of FULL-TIME CHEMISTS by Experience and Degree
1980 Starting Salary Survey

| PROFESSIONAL EXPERIENCE | HIGHEST DEGREE B.S. | M.S. | Ph.D. | No Response | TOTAL | |
|---|---|---|---|---|---|---|
| <12 months | 15,000 | 20,000 | 26,400 | --- | 16,400 | -Median |
| | 14,580 | 19,201 | 25,285 | 14,538 | 16,875 | -Mean |
| | 3,753 | 4,042 | 6,050 | 4,733 | 5,933 | -Std Dev |
| | 385 | 44 | 94 | 4 | 527 | -Count |
| 12-36 months | 16,000 | 18,000 | --- | --- | 17,038 | |
| | 15,774 | 17,362 | 27,060 | 19,500 | 17,187 | |
| | 5,203 | 3,262 | 2,329 | --- | 5,718 | |
| | 81 | 20 | 11 | 1 | 113 | |
| >36 months | 18,600 | 21,180 | 26,000 | --- | 20,000 | |
| | 17,569 | 22,230 | 27,961 | 20,000 | 20,782 | |
| | 3,641 | 4,915 | 8,256 | --- | 6,548 | |
| | 49 | 20 | 18 | 1 | 88 | |
| No Response | --- | --- | --- | --- | --- | |
| | 11,333 | 17,000 | 23,667 | --- | 17,429 | |
| | 577 | --- | 10,408 | --- | 8,619 | |
| | 3 | 1 | 3 | 0 | 7 | |
| TOTAL | 15,400 | 20,000 | 26,400 | --- | 17,000 | |
| | 15,031 | 19,455 | 25,783 | 16,275 | 17,396 | |
| | 4,100 | 4,384 | 6,308 | 4,551 | 6,122 | |
| | 518 | 85 | 126 | 6 | 735 | |

Table A-2

SALARIES of FULL-TIME CHEMICAL ENGINEERS by Experience and Degree
1980 Starting Salary Survey

| PROFESSIONAL EXPERIENCE | HIGHEST DEGREE B.S. | M.S. | Ph.D. | No Response | TOTAL | |
|---|---|---|---|---|---|---|
| <12 months | 21,600 | 23,850 | 28,800 | --- | 21,900 | -Median |
| | 21,414 | 23,689 | 27,499 | 20,083 | 21,808 | -Mean |
| | 1,927 | 1,604 | 4,339 | 4,466 | 2,461 | -Std Dev |
| | 545 | 44 | 25 | 6 | 620 | -Count |
| 12-36 months | 22,310 | 24,300 | --- | --- | 22,600 | |
| | 22,433 | 24,317 | 28,813 | 23,000 | 23,170 | |
| | 4,147 | 1,677 | 3,543 | 990 | 4,062 | |
| | 98 | 24 | 8 | 2 | 132 | |
| >36 months | --- | --- | --- | --- | 24,500 | |
| | 23,612 | 25,197 | 30,600 | 27,000 | 25,093 | |
| | 5,102 | 1,800 | 1,039 | --- | 4,380 | |
| | 13 | 8 | 3 | 1 | 25 | |
| No Response | --- | --- | --- | --- | --- | |
| | 19,140 | 21,200 | --- | --- | 19,655 | |
| | 5,376 | --- | --- | --- | 4,509 | |
| | 3 | 1 | 0 | 0 | 4 | |
| TOTAL | 21,900 | 24,000 | 29,000 | --- | 22,000 | |
| | 21,598 | 24,009 | 28,049 | 21,500 | 22,132 | |
| | 2,531 | 1,717 | 4,049 | 4,294 | 2,971 | |
| | 659 | 77 | 36 | 9 | 781 | |

SALARIES of INEXPERIENCED CHEMISTS in PRIVATE INDUSTRY by Sex and Degree
1980 Starting Salary Survey

| SEX | HIGHEST DEGREE B.S. | M.S. | Ph.D. | No Response | TOTAL | |
|---|---|---|---|---|---|---|
| Men | 16,800 | 20,050 | 26,500 | --- | 18,400 | -Median |
| | 15,958 | 19,786 | 26,844 | 15,900 | 19,398 | -Mean |
| | 3,376 | 2,773 | 5,178 | 6,930 | 6,114 | -Std Dev |
| | 131 | 28 | 60 | 2 | 221 | -Count |
| Women | 16,750 | --- | --- | --- | 17,460 | |
| | 16,410 | 19,920 | 27,382 | 15,600 | 17,666 | |
| | 2,927 | 2,930 | 1,824 | --- | 4,320 | |
| | 96 | 7 | 11 | 1 | 115 | |
| TOTAL | 16,800 | 20,000 | 26,500 | --- | 18,000 | |
| | 16,149 | 19,813 | 26,928 | 15,800 | 18,805 | |
| | 3,195 | 2,762 | 4,807 | 4,903 | 5,620 | |
| | 227 | 35 | 71 | 3 | 336 | |

Table A-4

SALARIES of INEXPERIENCED FULL-TIME CHEMICAL ENGINEERS in PRIVATE INDUSTRY by Sex and Degre
1980 Starting Salary Survey

| SEX | HIGHEST DEGREE B.S. | M.S. | Ph.D. | No Response | TOTAL | |
|---|---|---|---|---|---|---|
| Men | 21,720 | 23,850 | --- | --- | 21,900 | -Median |
| | 21,615 | 23,694 | 30,270 | 22,167 | 22,062 | -Mean |
| | 1,401 | 1,730 | 2,371 | 289 | 2,176 | -Std Dev |
| | 375 | 32 | 14 | 3 | 424 | -Count |
| Women | 21,900 | --- | --- | --- | 21,900 | |
| | 21,774 | 23,506 | 28,800 | 21,500 | 21,934 | |
| | 1,153 | 1,537 | --- | --- | 1,387 | |
| | 109 | 7 | 1 | 1 | 118 | |
| TOTAL | 21,800 | 23,700 | 30,000 | --- | 21,900 | |
| | 21,651 | 23,661 | 30,172 | 22,000 | 22,034 | |
| | 1,350 | 1,679 | 2,316 | 408 | 2,030 | |
| | 484 | 39 | 15 | 4 | 542 | |

SALARIES of INEXPERIENCED FULL-TIME CHEMISTS by Degree and Sex
1980 Starting Salary Survey

| HIGHEST DEGREE | SEX: Men | Women | No Response | TOTAL | |
|---|---|---|---|---|---|
| Bachelors | 15,000 | 15,000 | --- | 15,000 | -Median |
| | 14,496 | 14,693 | 15,000 | 14,580 | -Mean |
| | 3,719 | 3,819 | --- | 3,753 | -Std Dev |
| | 222 | 162 | 1 | 385 | -Count |
| Masters | 20,000 | --- | --- | 20,000 | |
| | 19,055 | 19,639 | --- | 19,201 | |
| | 3,983 | 4,384 | --- | 4,042 | |
| | 33 | 11 | 0 | 44 | |
| Doctorate | 26,280 | --- | --- | 26,400 | |
| | 25,301 | 25,193 | --- | 25,285 | |
| | 6,272 | 4,779 | --- | 6,050 | |
| | 80 | 14 | 0 | 94 | |
| No Response | --- | --- | --- | --- | |
| | 14,183 | 15,600 | --- | 14,538 | |
| | 5,732 | --- | --- | 4,733 | |
| | 3 | 1 | 0 | 4 | |
| TOTAL | 16,950 | 15,600 | --- | 16,400 | |
| | 17,495 | 15,769 | 15,000 | 16,875 | |
| | 6,381 | 4,869 | --- | 5,933 | |
| | 338 | 188 | 1 | 527 | |

Table A-6

SALARIES of INEXPERIENCED FULL-TIME CHEMISTS by Degree and Employer
1980 Starting Salary Survey

| EMPLOYER | HIGHEST DEGREE B.S. | M.S. | Ph.D. | No Response | TOTAL | |
|---|---|---|---|---|---|---|
| Manufacturing Industry | 16,800 | 20,000 | 26,500 | --- | 18,000 | -Median |
| | 16,331 | 19,668 | 26,998 | 15,800 | 19,073 | -Mean |
| | 3,138 | 2,763 | 4,858 | 4,903 | 5,647 | -Std Dev |
| | 203 | 33 | 69 | 3 | 308 | -Count |
| Non-manufacturing Industry | 14,750 | --- | --- | --- | 15,500 | |
| | 14,612 | 22,200 | 24,500 | --- | 15,860 | |
| | 3,325 | 1,697 | 707 | --- | 4,409 | |
| | 24 | 2 | 2 | 0 | 28 | |
| College or University | 10,280 | --- | --- | --- | 10,800 | |
| | 10,238 | 9,000 | 14,990 | --- | 11,603 | |
| | 2,007 | 4,243 | 4,689 | --- | 3,807 | |
| | 21 | 2 | 10 | 0 | 33 | |
| High School | 11,018 | --- | --- | --- | 11,018 | |
| | 10,705 | 12,500 | 11,000 | --- | 10,821 | |
| | 1,368 | --- | --- | --- | 1,353 | |
| | 16 | 1 | 1 | 0 | 18 | |
| Government | 13,825 | --- | --- | --- | 13,963 | |
| | 13,227 | 18,615 | 22,550 | --- | 15,076 | |
| | 2,761 | 6,632 | 3,931 | --- | 4,699 | |
| | 20 | 2 | 4 | 0 | 26 | |
| Hospital, Laboratory, or Non-profit Organization | 12,000 | --- | --- | --- | 12,015 | |
| | 12,429 | 13,660 | 24,900 | --- | 12,914 | |
| | 3,556 | --- | 3,394 | --- | 4,219 | |
| | 51 | 1 | 2 | 0 | 54 | |
| Other | 13,200 | --- | --- | --- | 14,000 | |
| | 13,374 | 23,333 | 27,475 | 10,750 | 14,895 | |
| | 3,630 | 4,041 | 2,540 | --- | 5,495 | |
| | 47 | 3 | 4 | 1 | 55 | |
| No Response | --- | --- | --- | --- | --- | |
| | 11,387 | --- | 27,050 | --- | 17,652 | |
| | 4,611 | --- | 778 | --- | 9,186 | |
| | 3 | 0 | 2 | 0 | 5 | |
| TOTAL | 15,000 | 20,000 | 26,400 | --- | 16,400 | |
| | 14,580 | 19,201 | 25,285 | 14,538 | 16,875 | |
| | 3,753 | 4,042 | 6,050 | 4,733 | 5,933 | |
| | 385 | 44 | 94 | 4 | 527 | |

Table A-7

SALARIES of INEXPERIENCED FULL-TIME CHEMISTS by Degree and Employer - Men
1980 Starting Salary Survey

| EMPLOYER | HIGHEST DEGREE B.S. | M.S. | Ph.D. | No Response | TOTAL | |
|---|---|---|---|---|---|---|
| Manufacturing Industry | 16,800 | 20,000 | 26,500 | --- | 18,600 | -Median |
| | 16,166 | 19,741 | 26,925 | 15,900 | 19,748 | -Mean |
| | 3,288 | 2,816 | 5,248 | 6,930 | 6,134 | -Std Dev |
| | 114 | 27 | 58 | 2 | 201 | -Count |
| Non-manufacturing Industry | 15,000 | --- | --- | --- | 15,500 | |
| | 14,563 | 21,000 | 24,500 | --- | 15,879 | |
| | 3,728 | --- | 707 | --- | 4,741 | |
| | 17 | 1 | 2 | 0 | 20 | |
| College or University | --- | --- | --- | --- | 10,250 | |
| | 9,515 | 9,000 | 14,875 | --- | 11,417 | |
| | 1,786 | 4,243 | 5,310 | --- | 4,371 | |
| | 12 | 2 | 8 | 0 | 22 | |
| High School | --- | --- | --- | --- | --- | |
| | 10,675 | 12,500 | 11,000 | --- | 10,854 | |
| | 1,558 | --- | --- | --- | 1,505 | |
| | 10 | 1 | 1 | 0 | 12 | |
| Government | --- | --- | --- | --- | 15,200 | |
| | 13,244 | 23,304 | 23,200 | --- | 15,906 | |
| | 3,209 | --- | 4,543 | --- | 5,584 | |
| | 11 | 1 | 3 | 0 | 15 | |
| Hospital, Laboratory, or Non-profit Organization | 12,000 | --- | --- | --- | 12,500 | |
| | 12,203 | --- | 24,900 | --- | 13,219 | |
| | 3,407 | --- | 3,394 | --- | 4,846 | |
| | 23 | 0 | 2 | 0 | 25 | |
| Other | 13,200 | --- | --- | --- | 14,500 | |
| | 13,940 | 21,000 | 27,475 | 10,750 | 15,466 | |
| | 2,638 | --- | 2,540 | --- | 5,038 | |
| | 32 | 1 | 4 | 1 | 38 | |
| No Response | --- | --- | --- | --- | --- | |
| | 11,387 | --- | 27,050 | --- | 17,652 | |
| | 4,611 | --- | 778 | --- | 9,186 | |
| | 3 | 0 | 2 | 0 | 5 | |
| TOTAL | 15,000 | 20,000 | 26,280 | --- | 16,950 | |
| | 14,496 | 19,055 | 25,301 | 14,183 | 17,495 | |
| | 3,719 | 3,983 | 6,272 | 5,732 | 6,381 | |
| | 222 | 33 | 80 | 3 | 338 | |

Table A-8

SALARIES of INEXPERIENCED FULL-TIME CHEMISTS by Degree and Employer - Women
1980 Starting Salary Survey

| EMPLOYER | HIGHEST DEGREE B.S. | M.S. | Ph.D. | No Response | TOTAL | |
|---|---|---|---|---|---|---|
| Manufacturing Industry | 17,000 | --- | --- | --- | 17,760 | -Median |
| | 16,543 | 19,340 | 27,382 | 15,600 | 17,805 | -Mean |
| | 2,940 | 2,735 | 1,824 | --- | 4,345 | -Std Dev |
| | 89 | 6 | 11 | 1 | 107 | -Count |
| Non-manufacturing Industry | --- | --- | --- | --- | --- | |
| | 14,729 | 23,400 | --- | --- | 15,813 | |
| | 2,306 | --- | --- | --- | 3,736 | |
| | 7 | 1 | 0 | 0 | 8 | |
| College or University | --- | --- | --- | --- | --- | |
| | 11,203 | --- | 15,450 | --- | 11,975 | |
| | 1,963 | --- | 71 | --- | 2,457 | |
| | 9 | 0 | 2 | 0 | 11 | |
| High School | --- | --- | --- | --- | --- | |
| | 10,756 | --- | --- | --- | 10,756 | |
| | 1,111 | --- | --- | --- | 1,111 | |
| | 6 | 0 | 0 | 0 | 6 | |
| Government | --- | --- | --- | --- | --- | |
| | 13,206 | 13,925 | 20,600 | --- | 13,944 | |
| | 2,286 | --- | --- | --- | 3,017 | |
| | 9 | 1 | 1 | 0 | 11 | |
| Hospital, laboratory, or Non-profit organization | 12,000 | --- | --- | --- | 12,000 | |
| | 12,526 | 13,660 | --- | --- | 12,566 | |
| | 3,766 | --- | --- | --- | 3,702 | |
| | 27 | 1 | 0 | 0 | 28 | |
| Other | 13,200 | --- | --- | --- | 14,000 | |
| | 12,167 | 24,500 | --- | --- | 13,618 | |
| | 5,060 | 4,950 | --- | --- | 6,380 | |
| | 15 | 2 | 0 | 0 | 17 | |
| TOTAL | 15,000 | --- | --- | --- | 15,600 | |
| | 14,693 | 19,639 | 25,193 | 15,600 | 15,769 | |
| | 3,819 | 4,384 | 4,779 | --- | 4,869 | |
| | 162 | 11 | 14 | 1 | 188 | |

Table A-9

SALARIES of INEXPERIENCED FULL-TIME CHEMISTS by Degree and Geographic Region
1980 Starting Salary Survey

| GEOGRAPHIC REGION | HIGHEST DEGREE B.S. | M.S. | Ph.D. | No Response | TOTAL | |
|---|---|---|---|---|---|---|
| Pacific | 15,780 | --- | --- | --- | 17,280 | -Median |
| | 14,966 | 20,800 | 25,679 | --- | 18,688 | -Mean |
| | 4,089 | 2,706 | 5,652 | --- | 6,686 | -Std Dev |
| | 28 | 3 | 14 | 0 | 45 | -Count |
| Mountain | 15,000 | --- | --- | --- | 17,500 | |
| | 14,933 | 19,000 | 27,000 | --- | 17,619 | |
| | 3,700 | 1,414 | 2,703 | --- | 5,829 | |
| | 15 | 2 | 4 | 0 | 21 | |
| West North Central | 12,500 | --- | --- | --- | 13,000 | |
| | 12,312 | 13,660 | 25,500 | --- | 13,675 | |
| | 2,429 | --- | 2,500 | --- | 4,653 | |
| | 26 | 1 | 3 | 0 | 30 | |
| West South Central | 18,000 | --- | --- | --- | 19,200 | |
| | 16,321 | 17,571 | 29,655 | --- | 19,837 | |
| | 4,061 | 6,041 | 9,887 | --- | 8,388 | |
| | 29 | 7 | 12 | 0 | 48 | |
| East North Central | 15,250 | --- | 25,000 | --- | 16,290 | |
| | 14,676 | 22,312 | 23,125 | 15,600 | 16,464 | |
| | 3,933 | 2,858 | 4,716 | --- | 5,208 | |
| | 82 | 7 | 16 | 1 | 106 | |
| East South Central | --- | --- | --- | --- | 11,700 | |
| | 12,049 | 28,000 | 28,450 | --- | 14,916 | |
| | 3,573 | --- | 636 | --- | 7,154 | |
| | 14 | 1 | 2 | 0 | 17 | |
| Middle Atlantic | 16,000 | 19,200 | 26,500 | --- | 17,400 | |
| | 15,663 | 18,819 | 25,632 | 15,900 | 17,977 | |
| | 3,278 | 2,886 | 4,263 | 6,930 | 5,212 | |
| | 97 | 17 | 28 | 2 | 144 | |
| South Atlantic | 13,200 | --- | --- | --- | 14,000 | |
| | 13,865 | 17,280 | 23,600 | --- | 15,047 | |
| | 3,772 | 3,407 | 6,061 | --- | 4,897 | |
| | 62 | 6 | 7 | 0 | 75 | |
| New England | 13,000 | --- | --- | --- | 14,000 | |
| | 13,132 | --- | 20,888 | --- | 14,809 | |
| | 3,240 | --- | 6,749 | --- | 5,244 | |
| | 29 | 0 | 8 | 0 | 37 | |
| No Response | --- | --- | --- | --- | --- | |
| | 15,000 | --- | --- | 10,750 | 13,938 | |
| | 3,000 | --- | --- | --- | 3,243 | |
| | 3 | 0 | 0 | 1 | 4 | |
| TOTAL | 15,000 | 20,000 | 26,400 | --- | 16,400 | |
| | 14,580 | 19,201 | 25,285 | 14,538 | 16,875 | |
| | 3,753 | 4,042 | 6,050 | 4,733 | 5,933 | |
| | 385 | 44 | 94 | 4 | 527 | |

Table A-10

SALARIES of INEXPERIENCED FULL-TIME B.S. CHEMISTS BY Employer and Certification Status
1980 Starting Salary Survey

| EMPLOYER | CERTIFICATION: Certified | CERTIFICATION: Non-certi. | CERTIFICATION: No Response | TOTAL | |
|---|---|---|---|---|---|
| Manufacturing Industry | 17,000 | 16,800 | --- | 16,800 | -Median |
| | 16,574 | 16,002 | 13,000 | 16,331 | -Mean |
| | 2,789 | 3,595 | --- | 3,138 | -Std Dev |
| | 122 | 80 | 1 | 203 | -Count |
| Non-manufacturing Industry | --- | --- | --- | 14,750 | |
| | 14,693 | 14,498 | --- | 14,612 | |
| | 3,548 | 3,171 | --- | 3,325 | |
| | 14 | 10 | 0 | 24 | |
| College or University | --- | --- | --- | 10,280 | |
| | 10,896 | 9,745 | --- | 10,238 | |
| | 2,370 | 1,619 | --- | 2,007 | |
| | 9 | 12 | 0 | 21 | |
| High School | --- | --- | --- | 11,018 | |
| | 10,637 | 10,721 | --- | 10,705 | |
| | 2,289 | 1,210 | --- | 1,368 | |
| | 3 | 13 | 0 | 16 | |
| Government | --- | --- | --- | 13,825 | |
| | 14,269 | 12,533 | --- | 13,227 | |
| | 3,035 | 2,446 | --- | 2,761 | |
| | 8 | 12 | 0 | 20 | |
| Hospital, Laboratory, or Non-profit Organization | 13,125 | 12,000 | --- | 12,000 | |
| | 12,893 | 12,217 | --- | 12,429 | |
| | 2,984 | 3,810 | --- | 3,556 | |
| | 16 | 35 | 0 | 51 | |
| Other | 14,000 | 12,700 | --- | 13,200 | |
| | 14,018 | 12,505 | --- | 13,374 | |
| | 2,765 | 4,479 | --- | 3,630 | |
| | 27 | 20 | 0 | 47 | |
| No Response | --- | --- | --- | --- | |
| | 13,830 | 6,500 | --- | 11,387 | |
| | 2,588 | --- | --- | 4,611 | |
| | 2 | 1 | 0 | 3 | |
| TOTAL | 15,600 | 13,740 | --- | 15,000 | |
| | 15,345 | 13,749 | 13,000 | 14,580 | |
| | 3,283 | 4,063 | --- | 3,753 | |
| | 201 | 183 | 1 | 385 | |

Table A-11

SALARIES of INEXPERIENCED FULL-TIME M.S. AND Ph.D. CHEMISTS by Degree Field
1980 Starting Salary Survey

| DEGREE FIELD | HIGHEST DEGREE M.S. | HIGHEST DEGREE Ph.D. | TOTAL | |
|---|---|---|---|---|
| Biochemistry | --- | --- | --- | -Median |
| | 15,070 | 21,695 | 17,909 | -Mean |
| | 3,700 | 10,700 | 7,586 | -Std Dev |
| | 4 | 3 | 7 | -Count |
| Chemistry, General | --- | --- | --- | |
| | 19,931 | 19,300 | 19,773 | |
| | 5,127 | 9,021 | 5,831 | |
| | 9 | 3 | 12 | |
| Agricultural | --- | --- | --- | |
| | --- | --- | --- | |
| | --- | --- | --- | |
| | 0 | 0 | 0 | |
| Analytical | --- | 25,100 | 23,450 | |
| | 18,403 | 24,925 | 22,417 | |
| | 3,255 | 3,279 | 4,554 | |
| | 10 | 16 | 26 | |
| Inorganic | --- | 26,450 | 25,800 | |
| | 20,795 | 24,450 | 23,873 | |
| | 1,122 | 4,938 | 4,726 | |
| | 3 | 16 | 19 | |
| Organic | --- | 26,400 | 25,100 | |
| | 17,177 | 25,540 | 23,449 | |
| | 4,463 | 7,991 | 8,102 | |
| | 13 | 39 | 52 | |
| Pharmaceutical | --- | --- | --- | |
| | --- | --- | --- | |
| | --- | --- | --- | |
| | 0 | 0 | 0 | |
| Physical | --- | 26,450 | 25,500 | |
| | 21,250 | 26,775 | 25,460 | |
| | 1,363 | 2,884 | 3,525 | |
| | 5 | 16 | 21 | |
| Theoretical | --- | --- | --- | |
| | --- | 25,000 | 25,000 | |
| | --- | --- | --- | |
| | 0 | 1 | 1 | |
| Polymer | --- | --- | --- | |
| | --- | 26,000 | 26,000 | |
| | --- | --- | --- | |
| | 0 | 1 | 1 | |
| Chemistry, other | --- | --- | --- | |
| | 22,375 | 26,700 | 23,817 | |
| | 2,213 | 424 | 2,822 | |
| | 4 | 2 | 6 | |
| TOTAL | 19,632 | 26,400 | 24,500 | |
| | 18,857 | 25,174 | 23,083 | |
| | 4,142 | 6,184 | 6,324 | |
| | 48 | 97 | 145 | |

Table A-12

SALARIES of INEXPERIENCED FULL-TIME CHEMICAL ENGINEERS by Degree and Sex
1980 Starting Salary Survey

| HIGHEST DEGREE | SEX | | TOTAL | |
|---|---|---|---|---|
| | Men | Women | | |
| Bachelors | 21,600 | 21,900 | 21,600 | -Median |
| | 21,370 | 21,571 | 21,414 | -Mean |
| | 1,911 | 1,984 | 1,927 | -Std Dev |
| | 426 | 119 | 545 | -Count |
| Masters | 24,000 | --- | 23,850 | |
| | 23,724 | 23,506 | 23,689 | |
| | 1,634 | 1,537 | 1,604 | |
| | 37 | 7 | 44 | |
| Doctorate | 28,900 | --- | 28,800 | |
| | 27,445 | 28,800 | 27,499 | |
| | 4,424 | --- | 4,339 | |
| | 24 | 1 | 25 | |
| No Response | --- | --- | --- | |
| | 22,000 | 16,250 | 20,083 | |
| | 408 | 7,425 | 4,466 | |
| | 4 | 2 | 6 | |
| TOTAL | 21,900 | 21,900 | 21,900 | |
| | 21,849 | 21,649 | 21,808 | |
| | 2,507 | 2,284 | 2,461 | |
| | 491 | 129 | 620 | |

Table A-13

SALARIES of INEXPERIENCED FULL-TIME CHEMICAL ENGINEERS by Degree and Employer
1980 Starting Salary Survey

| EMPLOYER | HIGHEST DEGREE B.S. | M.S. | Ph.D. | No Response | TOTAL | |
|---|---|---|---|---|---|---|
| Manufacturing Industry | 21,900 | 23,850 | --- | --- | 21,960 | -Median |
| | 21,741 | 23,721 | 29,813 | 21,833 | 22,122 | -Mean |
| | 1,356 | 1,668 | 1,922 | 289 | 1,992 | -Std Dev |
| | 432 | 36 | 14 | 3 | 485 | -Count |
| Non-manufacturing Industry | 21,000 | --- | --- | --- | 21,000 | |
| | 20,902 | 22,933 | 35,200 | 22,500 | 21,288 | |
| | 1,038 | 2,003 | --- | --- | 2,211 | |
| | 52 | 3 | 1 | 1 | 57 | |
| College or University | --- | --- | --- | --- | --- | |
| | --- | --- | 23,171 | --- | 23,171 | |
| | --- | --- | 3,001 | --- | 3,001 | |
| | 0 | 0 | 7 | 0 | 7 | |
| Government | --- | --- | --- | --- | 19,980 | |
| | 19,186 | 24,000 | 20,200 | --- | 19,575 | |
| | 3,252 | --- | --- | --- | 3,261 | |
| | 13 | 1 | 1 | 0 | 15 | |
| Hospital, Laboratory, or Non-profit Organization | --- | --- | --- | --- | --- | |
| | 19,975 | 23,000 | 22,500 | 21,500 | 21,238 | |
| | 2,986 | 0 | --- | --- | 2,420 | |
| | 4 | 2 | 1 | 1 | 8 | |
| Other | 21,000 | --- | --- | --- | 21,000 | |
| | 18,911 | 24,780 | 30,000 | 11,000 | 19,304 | |
| | 4,474 | 255 | --- | --- | 4,957 | |
| | 34 | 2 | 1 | 1 | 38 | |
| No Response | --- | --- | --- | --- | --- | |
| | 21,905 | --- | --- | --- | 21,905 | |
| | 1,080 | --- | --- | --- | 1,080 | |
| | 10 | 0 | 0 | 0 | 10 | |
| TOTAL | 21,600 | 23,850 | 28,800 | --- | 21,900 | |
| | 21,414 | 23,689 | 27,499 | 20,083 | 21,808 | |
| | 1,927 | 1,604 | 4,339 | 4,466 | 2,461 | |
| | 545 | 44 | 25 | 6 | 620 | |

Table A-14

SALARIES of INEXPERIENCED FULL-TIME CHEMICAL ENGINEERS by Degree and Employer - Men
1980 Starting Salary Survey

| EMPLOYER | HIGHEST DEGREE B.S. | M.S. | Ph.D. | No Response | TOTAL | |
|---|---|---|---|---|---|---|
| Manufacturing Industry | 21,900 | 24,000 | --- | --- | 22,000 | -Median |
| | 21,717 | 23,723 | 29,891 | 22,000 | 22,160 | -Mean |
| | 1,399 | 1,750 | 1,977 | 0 | 2,120 | -Std Dev |
| | 336 | 31 | 13 | 2 | 382 | -Count |
| Non-manufacturing Industry | 21,000 | --- | --- | --- | 21,000 | |
| | 20,739 | 22,800 | 35,200 | 22,500 | 21,175 | |
| | 1,099 | --- | --- | --- | 2,491 | |
| | 39 | 1 | 1 | 1 | 42 | |
| College or University | --- | --- | --- | --- | --- | |
| | --- | --- | 23,171 | --- | 23,171 | |
| | --- | --- | 3,001 | --- | 3,001 | |
| | 0 | 0 | 7 | 0 | 7 | |
| Government | --- | --- | --- | --- | --- | |
| | 19,412 | 24,000 | 20,200 | --- | 19,860 | |
| | 3,542 | --- | --- | --- | 3,466 | |
| | 10 | 1 | 1 | 0 | 12 | |
| Hospital, Laboratory, or Non-profit Organization | --- | --- | --- | --- | --- | |
| | 19,433 | 23,000 | 22,500 | 21,500 | 21,186 | |
| | 3,408 | 0 | --- | --- | 2,609 | |
| | 3 | 2 | 1 | 1 | 7 | |
| Other | 20,880 | --- | --- | --- | 21,000 | |
| | 19,010 | 24,780 | 30,000 | --- | 19,692 | |
| | 3,849 | 255 | --- | --- | 4,336 | |
| | 30 | 2 | 1 | 0 | 33 | |
| No Response | --- | --- | --- | --- | --- | |
| | 21,888 | --- | --- | --- | 21,888 | |
| | 1,224 | --- | --- | --- | 1,224 | |
| | 8 | 0 | 0 | 0 | 8 | |
| TOTAL | 21,600 | 24,000 | 28,900 | --- | 21,900 | |
| | 21,370 | 23,724 | 27,445 | 22,000 | 21,849 | |
| | 1,911 | 1,634 | 4,424 | 408 | 2,507 | |
| | 426 | 37 | 24 | 4 | 491 | |



Table A-15

SALARIES of INEXPERIENCED FULL-TIME CHEMICAL ENGINEERS by Degree and Employer - Women
1980 Starting Salary Survey

| EMPLOYER | HIGHEST DEGREE B.S. | M.S. | Ph.D. | No Response | TOTAL | |
|---|---|---|---|---|---|---|
| Manufacturing Industry | 21,900 | --- | --- | --- | 21,900 | -Median |
| | 21,826 | 23,708 | 28,800 | 21,500 | 21,982 | -Mean |
| | 1,198 | 1,168 | --- | --- | 1,420 | -Std Dev |
| | 96 | 5 | 1 | 1 | 103 | -Count |
| Non-manufacturing Industry | --- | --- | --- | --- | 21,600 | |
| | 21,391 | 23,000 | --- | --- | 21,605 | |
| | 640 | 2,828 | --- | --- | 1,115 | |
| | 13 | 2 | 0 | 0 | 15 | |
| Government | --- | --- | --- | --- | --- | |
| | 18,434 | --- | --- | --- | 18,434 | |
| | 2,428 | --- | --- | --- | 2,428 | |
| | 3 | 0 | 0 | 0 | 3 | |
| Hospital, Laboratory, or Non-profit Organization | --- | --- | --- | --- | --- | |
| | 21,600 | --- | --- | --- | 21,600 | |
| | --- | --- | --- | --- | --- | |
| | 1 | 0 | 0 | 0 | 1 | |
| Other | --- | --- | --- | --- | --- | |
| | 18,175 | --- | --- | 11,000 | 16,740 | |
| | 8,728 | --- | --- | --- | 8,212 | |
| | 4 | 0 | 0 | 1 | 5 | |
| No Response | --- | --- | --- | --- | --- | |
| | 21,975 | --- | --- | --- | 21,975 | |
| | 106 | --- | --- | --- | 106 | |
| | 2 | 0 | 0 | 0 | 2 | |
| TOTAL | 21,900 | --- | --- | --- | 21,900 | |
| | 21,571 | 23,506 | 28,800 | 16,250 | 21,649 | |
| | 1,984 | 1,537 | --- | 7,425 | 2,284 | |
| | 119 | 7 | 1 | 2 | 129 | |

Table A-16

SALARIES of INEXPERIENCED FULL-TIME CHEMICAL ENGINEERS by Geographic Region and Degree
1980 Starting Salary Survey

| GEOGRAPHIC REGION | HIGHEST DEGREE B.S. | M.S. | Ph.D. | No Response | TOTAL | |
|---|---|---|---|---|---|---|
| Pacific | 21,900 | --- | --- | --- | 22,125 | -Median |
| | 21,629 | 23,850 | 25,467 | 22,000 | 22,140 | -Mean |
| | 1,671 | 2,045 | 7,032 | --- | 2,379 | -Std Dev |
| | 46 | 8 | 3 | 1 | 58 | -Count |
| Mountain | 21,500 | --- | --- | --- | 21,600 | |
| | 21,459 | 24,787 | 21,200 | --- | 21,971 | |
| | 1,158 | 180 | --- | --- | 1,618 | |
| | 15 | 3 | 1 | 0 | 19 | |
| West North Central | 21,600 | --- | --- | --- | 21,600 | |
| | 21,552 | 22,810 | 27,000 | --- | 21,914 | |
| | 696 | 608 | --- | --- | 1,364 | |
| | 19 | 2 | 1 | 0 | 22 | |
| West South Central | 22,400 | --- | --- | --- | 22,500 | |
| | 22,488 | 23,700 | 30,000 | --- | 22,867 | |
| | 1,158 | 900 | 2,179 | --- | 1,948 | |
| | 63 | 3 | 3 | 0 | 69 | |
| East North Central | 21,600 | --- | --- | --- | 21,740 | |
| | 21,307 | 23,906 | 26,950 | 22,000 | 21,721 | |
| | 1,447 | 1,843 | 3,523 | --- | 2,004 | |
| | 88 | 7 | 4 | 1 | 100 | |
| East South Central | 21,900 | --- | --- | --- | 22,000 | |
| | 21,488 | 24,600 | --- | 22,500 | 21,695 | |
| | 1,569 | 849 | --- | --- | 1,680 | |
| | 32 | 2 | 0 | 1 | 35 | |
| Middle Atlantic | 21,600 | --- | --- | --- | 21,760 | |
| | 21,415 | 23,806 | 28,708 | 21,500 | 21,873 | |
| | 1,730 | 702 | 4,245 | 0 | 2,504 | |
| | 177 | 7 | 10 | 2 | 196 | |
| South Atlantic | 21,600 | --- | --- | --- | 21,600 | |
| | 21,207 | 23,349 | 26,000 | --- | 21,662 | |
| | 2,286 | 1,791 | 5,024 | --- | 2,590 | |
| | 62 | 9 | 3 | 0 | 74 | |
| New England | 21,500 | --- | --- | --- | 21,200 | |
| | 20,976 | 20,750 | --- | --- | 20,964 | |
| | 1,222 | 354 | --- | --- | 1,192 | |
| | 37 | 2 | 0 | 0 | 39 | |
| No Response | --- | --- | --- | --- | --- | |
| | 13,921 | 25,620 | --- | 11,000 | 15,019 | |
| | 6,372 | --- | --- | --- | 6,957 | |
| | 6 | 1 | 0 | 1 | 8 | |
| TOTAL | 21,600 | 23,850 | 28,800 | --- | 21,900 | |
| | 21,414 | 23,689 | 27,499 | 20,083 | 21,808 | |
| | 1,927 | 1,604 | 4,339 | 4,466 | 2,461 | |
| | 545 | 44 | 25 | 6 | 620 | |

Table A-17

SALARIES of POSTDOCTORAL FELLOWS by Employer and Degree Field
1980 Starting Salary Survey

| EMPLOYER | DEGREE FIELD: Chemical Eng. | Bio-Chem. | Chemist | Non-Chemical | TOTAL | |
|---|---|---|---|---|---|---|
| Manufacturing Industry | --- | --- | --- | --- | --- | -Median |
| | --- | --- | 22,450 | --- | 22,450 | -Mean |
| | --- | --- | 5,586 | --- | 5,586 | -Std Dev |
| | 0 | 0 | 2 | 0 | 2 | -Count |
| Non-manufacturing Industry | --- | --- | --- | --- | --- | |
| | --- | --- | 22,000 | --- | 22,000 | |
| | --- | --- | --- | --- | --- | |
| | 0 | 0 | 1 | 0 | 1 | |
| College or University | --- | --- | 12,000 | --- | 12,500 | |
| | 11,848 | 13,380 | 12,421 | 13,750 | 12,362 | |
| | 2,483 | --- | 2,244 | 354 | 2,246 | |
| | 12 | 1 | 40 | 2 | 55 | |
| Government | --- | --- | --- | --- | --- | |
| | 14,916 | --- | 17,768 | 20,000 | 17,664 | |
| | --- | --- | 1,273 | --- | 1,893 | |
| | 1 | 0 | 4 | 1 | 6 | |
| Hospital, Laboratory, or Non-Profit Organization | --- | --- | --- | --- | --- | |
| | --- | --- | 15,200 | --- | 15,200 | |
| | --- | --- | 1,823 | --- | 1,823 | |
| | 0 | 0 | 5 | 0 | 5 | |
| No Response | --- | --- | --- | --- | --- | |
| | --- | --- | 15,000 | --- | 15,000 | |
| | --- | --- | --- | --- | --- | |
| | 0 | 0 | 1 | 0 | 1 | |
| TOTAL | --- | --- | 13,000 | --- | 13,240 | |
| | 12,084 | 13,380 | 13,694 | 15,833 | 13,483 | |
| | 2,525 | --- | 3,431 | 3,617 | 3,317 | |
| | 13 | 1 | 53 | 3 | 70 | |

Table B-1

EMPLOYMENT STATUS of B.S. CHEMISTS by Experience
1980 Starting Salary Survey

| EMPLOYMENT STATUS | PROFESSIONAL EXPERIENCE < 12 Months | 12-36 Months | >36 Months | No Response | TOTAL | |
|---|---|---|---|---|---|---|
| Full-time in Chemistry | 299 | 67 | 38 | 12 | 416 | -Count |
| | 71.9% | 16.1% | 9.1% | 2.9% | 100.0% | -% of Row |
| | 35.9% | 41.1% | 59.4% | 2.0% | 25.2% | -% of Col |
| Full-time in Non-chemistry | 100 | 17 | 13 | 3 | 133 | |
| | 75.2% | 12.8% | 9.8% | 2.3% | 100.0% | |
| | 12.0% | 10.4% | 20.3% | 0.5% | 8.1% | |
| Assistantship, Postdoctoral or Other Fellowship | 345 | 66 | 8 | 25 | 444 | |
| | 77.7% | 14.9% | 1.8% | 5.6% | 100.0% | |
| | 41.4% | 40.5% | 12.5% | 4.2% | 26.9% | |
| Unemployed and Seeking Employment | 11 | 2 | 1 | 141 | 155 | |
| | 7.1% | 1.3% | 0.6% | 91.0% | 100.0% | |
| | 1.3% | 1.2% | 1.6% | 23.9% | 9.4% | |
| Unemployed and Not Seeking Employment | 62 | 7 | 3 | 362 | 434 | |
| | 14.3% | 1.6% | 0.7% | 83.4% | 100.0% | |
| | 7.4% | 4.3% | 4.7% | 61.3% | 26.3% | |
| No Response | 17 | 4 | 1 | 48 | 70 | |
| | 24.3% | 5.7% | 1.4% | 68.6% | 100.0% | |
| | 2.0% | 2.5% | 1.6% | 8.1% | 4.2% | |
| TOTAL | 834 | 163 | 64 | 591 | 1,652 | |
| | 50.5% | 9.9% | 3.9% | 35.8% | 100.0% | |
| | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | |

Table B-2

EMPLOYMENT STATUS of M.S. CHEMISTS by Experience
1980 Starting Salary Survey

| EMPLOYMENT STATUS | PROFESSIONAL EXPERIENCE | | | | TOTAL | |
|---|---|---|---|---|---|---|
| | < 12 Months | 12-36 Months | >36 Months | No Response | | |
| Full-time in Chemistry | 41 | 14 | 19 | 1 | 75 | -Count |
| | 54.7% | 18.7% | 25.3% | 1.3% | 100.0% | -% of Row |
| | 46.1% | 33.3% | 65.5% | 4.8% | 41.4% | -% of Col |
| Full-time in Non-chemistry | 3 | 6 | 1 | 0 | 10 | |
| | 30.0% | 60.0% | 10.0% | 0.0% | 100.0% | |
| | 3.4% | 14.3% | 3.4% | 0.0% | 5.5% | |
| Assistantship, Postdoctoral or Other Fellowship | 40 | 20 | 9 | 0 | 69 | |
| | 58.0% | 29.0% | 13.0% | 0.0% | 100.0% | |
| | 44.9% | 47.6% | 31.0% | 0.0% | 38.1% | |
| Unemployed and Seeking Employment | 0 | 0 | 0 | 8 | 8 | |
| | 0.0% | 0.0% | 0.0% | 100.0% | 100.0% | |
| | 0.0% | 0.0% | 0.0% | 38.1% | 4.4% | |
| Unemployed and not Seeking Employment | 2 | 1 | 0 | 8 | 11 | |
| | 18.2% | 9.1% | 0.0% | 72.7% | 100.0% | |
| | 2.2% | 2.4% | 0.0% | 38.1% | 6.1% | |
| No Response | 3 | 1 | 0 | 4 | 8 | |
| | 37.5% | 12.5% | 0.0% | 50.0% | 100.0% | |
| | 3.4% | 2.4% | 0.0% | 19.0% | 4.4% | |
| TOTAL | 89 | 42 | 29 | 21 | 181 | |
| | 49.2% | 23.2% | 16.0% | 11.6% | 100.0% | |
| | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | |

Table B-3

EMPLOYMENT STATUS of Ph.D. CHEMISTS by Experience
1980 Starting Salary Survey

| EMPLOYMENT STATUS | PROFESSIONAL EXPERIENCE | | | | TOTAL | |
|---|---|---|---|---|---|---|
| | < 12 Months | 12-36 Months | >36 Months | No Response | | |
| Full-time in Chemistry | 92 | 9 | 18 | 4 | 123 | -Count |
| | 74.8% | 7.3% | 14.6% | 3.3% | 100.0% | -% of Row |
| | 65.2% | 50.0% | 64.3% | 33.3% | 61.8% | -% of Col |
| Full-time in Non-chemistry | 3 | 2 | 2 | 0 | 7 | |
| | 42.9% | 28.6% | 28.6% | 0.0% | 100.0% | |
| | 2.1% | 11.1% | 7.1% | 0.0% | 3.5% | |
| Assistantship, Postdoctoral or Other Fellowship | 46 | 7 | 5 | 1 | 59 | |
| | 78.0% | 11.9% | 8.5% | 1.7% | 100.0% | |
| | 32.6% | 38.9% | 17.9% | 8.3% | 29.6% | |
| Unemployed and Seeking Employment | 0 | 0 | 1 | 6 | 7 | |
| | 0.0% | 0.0% | 14.3% | 85.7% | 100.0% | |
| | 0.0% | 0.0% | 3.6% | 50.0% | 3.5% | |
| Unemployed and Not Seeking Employment | 0 | 0 | 1 | 0 | 1 | |
| | 0.0% | 0.0% | 100.0% | 0.0% | 100.0% | |
| | 0.0% | 0.0% | 3.6% | 0.0% | 0.5% | |
| No Response | 0 | 0 | 1 | 1 | 2 | |
| | 0.0% | 0.0% | 50.0% | 50.0% | 100.0% | |
| | 0.0% | 0.0% | 3.6% | 8.3% | 1.0% | |
| TOTAL | 141 | 18 | 28 | 12 | 199 | |
| | 70.9% | 9.0% | 14.1% | 6.0% | 100.0% | |
| | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | |

Table B-4

EMPLOYMENT STATUS of CHEMISTS by Degree and Sex
1980 Starting Salary Survey

| EMPLOYMENT STATUS | Bachelors SEX Men | Women | No Response | TOTAL | Masters Men | Women | No Response | TOTAL | Doctorate Men | Women | No Response | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Full-time in Chemistry | 238 | 168 | 0 | 406 | 54 | 18 | 0 | 72 | 107 | 16 | 0 | 123 -Count |
| | 58.6% | 41.4% | 0.0% | 100.0% | 75.0% | 25.0% | 0.0% | 100.0% | 87.0% | 13.0% | 0.0% | 100.0% -% of Row |
| | 21.0% | 34.4% | 0.0% | 25.0% | 39.4% | 48.6% | ***.*% | 41.4% | 64.8% | 48.5% | ***.*% | 62.1% -% of Col |
| Full-time in Non-Chemistry | 82 | 50 | 1 | 133 | 5 | 5 | 0 | 10 | 6 | 1 | 0 | 7 |
| | 61.7% | 37.6% | 0.8% | 100.0% | 50.0% | 50.0% | 0.0% | 100.0% | 85.7% | 14.3% | 0.0% | 100.0% |
| | 7.2% | 10.2% | 50.0% | 8.2% | 3.6% | 13.5% | ***.*% | 5.7% | 3.6% | 3.0% | ***.*% | 3.5% |
| Assistantship, Postdoctoral or Other Fellowship | 332 | 102 | 0 | 434 | 57 | 9 | 0 | 66 | 44 | 14 | 0 | 58 |
| | 76.5% | 23.5% | 0.0% | 100.0% | 86.4% | 13.6% | 0.0% | 100.0% | 75.9% | 24.1% | 0.0% | 100.0% |
| | 29.3% | 20.9% | 0.0% | 26.7% | 41.6% | 24.3% | ***.*% | 37.9% | 26.7% | 42.4% | ***.*% | 29.3% |
| Unemployed and Seeking Employment | 104 | 49 | 0 | 153 | 5 | 3 | 0 | 8 | 5 | 2 | 0 | 7 |
| | 68.0% | 32.0% | 0.0% | 100.0% | 62.5% | 37.5% | 0.0% | 100.0% | 71.4% | 28.6% | 0.0% | 100.0% |
| | 9.2% | 10.0% | 0.0% | 9.4% | 3.6% | 8.1% | ***.*% | 4.6% | 3.0% | 6.1% | ***.*% | 3.5% |
| Unemployed and Not Seeking Employment | 330 | 101 | 0 | 431 | 11 | 0 | 0 | 11 | 1 | 0 | 0 | 1 |
| | 76.6% | 23.4% | 0.0% | 100.0% | 100.0% | 0.0% | 0.0% | 100.0% | 100.0% | 0.0% | 0.0% | 100.0% |
| | 29.1% | 20.7% | 0.0% | 26.5% | 8.0% | 0.0% | ***.*% | 6.3% | 0.6% | 0.0% | ***.*% | 0.5% |
| No Response | 49 | 19 | 1 | 69 | 5 | 2 | 0 | 7 | 2 | 0 | 0 | 2 |
| | 71.0% | 27.5% | 1.4% | 100.0% | 71.4% | 28.6% | 0.0% | 100.0% | 100.0% | 0.0% | 0.0% | 100.0% |
| | 4.3% | 3.9% | 50.0% | 4.2% | 3.6% | 5.4% | ***.*% | 4.0% | 1.2% | 0.0% | ***.*% | 1.0% |
| TOTAL | 1,135 | 489 | 2 | 1,626 | 137 | 37 | 0 | 174 | 165 | 33 | 0 | 198 |
| | 69.8% | 30.1% | 0.1% | 100.0% | 78.7% | 21.3% | 0.0% | 100.0% | 83.3% | 16.7% | 0.0% | 100.0% |
| | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | ***.*% | 100.0% | 100.0% | 100.0% | ***.*% | 100.0% |
| ADVANCED STUDY PLANS FALL 1980 | | | | | | | | | | | | |
| Full-time | 717 | 224 | 1 | 942 | 75 | 12 | 0 | 87 | 11 | 1 | 0 | 12 |
| | 76.1% | 23.8% | 0.1% | 100.0% | 86.2% | 13.8% | 0.0% | 100.0% | 91.7% | 8.3% | 0.0% | 100.0% |
| | 63.2% | 45.8% | 50.0% | 57.9% | 54.7% | 32.4% | ***.*% | 50.0% | 6.7% | 3.0% | ***.*% | 6.1% |
| Part-time | 125 | 76 | 1 | 202 | 8 | 7 | 0 | 15 | 7 | 2 | 0 | 9 |
| | 61.9% | 37.6% | 0.5% | 100.0% | 53.3% | 46.7% | 0.0% | 100.0% | 77.8% | 22.2% | 0.0% | 100.0% |
| | 11.0% | 15.5% | 50.0% | 12.4% | 5.8% | 18.9% | ***.*% | 8.6% | 4.2% | 6.1% | ***.*% | 4.5% |
| No Plans | 287 | 184 | 0 | 471 | 50 | 18 | 0 | 68 | 143 | 30 | 0 | 173 |
| | 60.9% | 39.1% | 0.0% | 100.0% | 73.5% | 26.5% | 0.0% | 100.0% | 82.7% | 17.3% | 0.0% | 100.0% |
| | 25.3% | 37.6% | 0.0% | 29.0% | 36.5% | 48.6% | ***.*% | 39.1% | 86.7% | 90.9% | ***.*% | 87.4% |
| No Response | 6 | 5 | 0 | 11 | 4 | 0 | 0 | 4 | 4 | 0 | 0 | 4 |
| | 54.5% | 45.5% | 0.0% | 100.0% | 100.0% | 0.0% | 0.0% | 100.0% | 100.0% | 0.0% | 0.0% | 100.0% |
| | 0.5% | 1.0% | 0.0% | 0.7% | 2.9% | 0.0% | ***.*% | 2.3% | 2.4% | 0.0% | ***.*% | 2.0% |
| TOTAL | 1,135 | 489 | 2 | 1,626 | 137 | 37 | 0 | 174 | 165 | 33 | 0 | 198 |
| | 69.8% | 30.1% | 0.1% | 100.0% | 78.7% | 21.3% | 0.0% | 100.0% | 83.3% | 16.7% | 0.0% | 100.0% |
| | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | ***.*% | 100.0% | 100.0% | 100.0% | ***.*% | 100.0% |

Table B-5

EMPLOYMENT STATUS of B.S. CHEMISTS by Certification Status
1980 Starting Salary Survey

| EMPLOYMENT STATUS | CERTIFICATION: Certified | Non-Cert. | No Response | TOTAL | |
|---|---|---|---|---|---|
| Full-time in Chemistry | 238 | 167 | 1 | 406 | -Count |
| | 58.6% | 41.1% | 0.2% | 100.0% | -% of Row |
| | 29.6% | 20.4% | 20.0% | 25.0% | -% of Col |
| Full-time in Non-Chemistry | 54 | 79 | 0 | 133 | |
| | 40.6% | 59.4% | 0.0% | 100.0% | |
| | 6.7% | 9.7% | 0.0% | 8.2% | |
| Assistantship, Postdoctoral or Other Fellowship | 287 | 145 | 2 | 434 | |
| | 66.1% | 33.4% | 0.5% | 100.0% | |
| | 35.7% | 17.7% | 40.0% | 26.7% | |
| Unemployed and Seek Employment | 72 | 81 | 0 | 153 | |
| | 47.1% | 52.9% | 0.0% | 100.0% | |
| | 9.0% | 9.9% | 0.0% | 9.4% | |
| Unemployed and Not Seeking Employment | 133 | 296 | 2 | 431 | |
| | 30.9% | 68.7% | 0.5% | 100.0% | |
| | 16.6% | 36.2% | 40.0% | 26.5% | |
| No Response | 19 | 50 | 0 | 69 | |
| | 27.5% | 72.5% | 0.0% | 100.0% | |
| | 2.4% | 6.1% | 0.0% | 4.2% | |
| TOTAL | 803 | 818 | 5 | 1,626 | |
| | 49.4% | 50.3% | 0.3% | 100.0% | |
| | 100.0% | 100.0% | 100.0% | 100.0% | |

ADVANCED STUDY PLANS
FALL 1980

| | | | | | |
|---|---|---|---|---|---|
| Full-time | 451 | 487 | 4 | 942 | |
| | 47.9% | 51.7% | 0.4% | 100.0% | |
| | 56.2% | 59.5% | 80.0% | 57.9% | |
| Part-time | 108 | 94 | 0 | 202 | |
| | 53.5% | 46.5% | 0.0% | 100.0% | |
| | 13.4% | 11.5% | 0.0% | 12.4% | |
| No Plans | 239 | 231 | 1 | 471 | |
| | 50.7% | 49.0% | 0.2% | 100.0% | |
| | 29.8% | 28.2% | 20.0% | 29.0% | |
| No Response | 5 | 6 | 0 | 11 | |
| | 45.5% | 54.5% | 0.0% | 100.0% | |
| | 0.6% | 0.7% | 0.0% | 0.7% | |
| TOTAL | 803 | 818 | 5 | 1,626 | |
| | 49.4% | 50.3% | 0.3% | 100.0% | |
| | 100.0% | 100.0% | 100.0% | 100.0% | |

Table B-6

EMPLOYMENT STATUS OF M.S. and Ph.D. CHEMISTS by Degree Field
1980 Starting Salary Survey

Masters

| EMPLOYMENT STATUS | Bio-chem. | General Chem | Agri-cultural | Analyti-cal | In-organic | Organic | Pharm. | Physical | Theoret-ical | Polymer | Other Chem | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Full-time in Chemistry | 4 | 20 | 0 | 13 | 6 | 19 | 0 | 6 | 0 | 1 | 7 | 76 -Count |
| | 5.3% | 26.3% | 0.0% | 17.1% | 7.9% | 25.0% | 0.0% | 7.9% | 0.0% | 1.3% | 9.2% | 100.0% -% of Row |
| | 19.0% | 52.6% | ***.*% | 61.9% | 40.0% | 36.5% | 0.0% | 20.0% | ***.*% | 33.3% | 53.8% | 39.0% -% of Col |
| Full-time in Non-chemistry | 1 | 0 | 0 | 0 | 0 | 3 | 0 | 4 | 0 | 0 | 3 | 11 |
| | 9.1% | 0.0% | 0.0% | 0.0% | 0.0% | 27.3% | 0.0% | 36.4% | 0.0% | 0.0% | 27.3% | 100.0% |
| | 4.8% | 0.0% | ***.*% | 0.0% | 0.0% | 5.8% | 0.0% | 13.3% | ***.*% | 0.0% | 23.1% | 5.6% |
| Assistantship, Postdoctoral or Other Fellowship | 12 | 12 | 0 | 4 | 9 | 22 | 1 | 16 | 0 | 1 | 1 | 78 |
| | 15.4% | 15.4% | 0.0% | 5.1% | 11.5% | 28.2% | 1.3% | 20.5% | 0.0% | 1.3% | 1.3% | 100.0% |
| | 57.1% | 31.6% | ***.*% | 19.0% | 60.0% | 42.3% | 50.0% | 53.3% | ***.*% | 33.3% | 7.7% | 40.0% |
| Unemployed and Seeking Employment | 1 | 1 | 0 | 2 | 0 | 2 | 1 | 1 | 0 | 1 | 0 | 9 |
| | 11.1% | 11.1% | 0.0% | 22.2% | 0.0% | 22.2% | 11.1% | 11.1% | 0.0% | 11.1% | 0.0% | 100.0% |
| | 4.8% | 2.6% | ***.*% | 9.5% | 0.0% | 3.8% | 50.0% | 3.3% | ***.*% | 33.3% | 0.0% | 4.6% |
| Unemployed and not Seeking Employment | 2 | 2 | 0 | 0 | 0 | 6 | 0 | 2 | 0 | 0 | 1 | 13 |
| | 15.4% | 15.4% | 0.0% | 0.0% | 0.0% | 46.2% | 0.0% | 15.4% | 0.0% | 0.0% | 7.7% | 100.0% |
| | 9.5% | 5.3% | ***.*% | 0.0% | 0.0% | 11.5% | 0.0% | 6.7% | ***.*% | 0.0% | 7.7% | 6.7% |
| No Response | 1 | 3 | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 8 |
| | 12.5% | 37.5% | 0.0% | 25.0% | 0.0% | 0.0% | 0.0% | 12.5% | 0.0% | 0.0% | 12.5% | 100.0% |
| | 4.8% | 7.9% | ***.*% | 9.5% | 0.0% | 0.0% | 0.0% | 3.3% | ***.*% | 0.0% | 7.7% | 4.1% |
| TOTAL | 21 | 38 | 0 | 21 | 15 | 52 | 2 | 30 | 0 | 3 | 13 | 195 |
| | 10.8% | 19.5% | 0.0% | 10.8% | 7.7% | 26.7% | 1.0% | 15.4% | 0.0% | 1.5% | 6.7% | 100.0% |
| | 100.0% | 100.0% | ***.*% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | ***.*% | 100.0% | 100.0% | 100.0% |

Doctorate

| EMPLOYMENT STATUS | Bio-chem. | General Chem | Agri-cultural | Analyti-cal | In-organic | Organic | Pharm. | Physical | Theoret-ical | Polymer | Other Chem | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Full-time in Chemistry | 5 | 4 | 0 | 22 | 21 | 47 | 1 | 20 | 0 | 4 | 4 | 128 |
| | 3.9% | 3.1% | 0.0% | 17.2% | 16.4% | 36.7% | 0.8% | 15.6% | 0.0% | 3.1% | 3.1% | 100.0% |
| | 26.3% | 57.1% | 0.0% | 81.5% | 61.8% | 64.4% | 100.0% | 52.6% | 0.0% | 80.0% | 40.0% | 59.0% |
| Full-time in Non-chemistry | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 3 | 1 | 0 | 1 | 8 |
| | 12.5% | 0.0% | 0.0% | 12.5% | 12.5% | 0.0% | 0.0% | 37.5% | 12.5% | 0.0% | 12.5% | 100.0% |
| | 5.3% | 0.0% | 0.0% | 3.7% | 2.9% | 0.0% | 0.0% | 7.9% | 50.0% | 0.0% | 10.0% | 3.7% |
| Assistantship, Postdoctoral or Other Fellowship | 13 | 3 | 1 | 2 | 10 | 23 | 0 | 14 | 0 | 1 | 4 | 71 |
| | 18.3% | 4.2% | 1.4% | 2.8% | 14.1% | 32.4% | 0.0% | 19.7% | 0.0% | 1.4% | 5.6% | 100.0% |
| | 68.4% | 42.9% | 100.0% | 7.4% | 29.4% | 31.5% | 0.0% | 36.8% | 0.0% | 20.0% | 40.0% | 32.7% |
| Unemployed and Seeking Employment | 0 | 0 | 0 | 2 | 2 | 2 | 0 | 0 | 1 | 0 | 0 | 7 |
| | 0.0% | 0.0% | 0.0% | 28.6% | 28.6% | 28.6% | 0.0% | 0.0% | 14.3% | 0.0% | 0.0% | 100.0% |
| | 0.0% | 0.0% | 0.0% | 7.4% | 5.9% | 2.7% | 0.0% | 0.0% | 50.0% | 0.0% | 0.0% | 3.2% |
| Unemployed and not Seeking Employment | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 100.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 100.0% |
| | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 1.4% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.5% |
| No Response | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 2 |
| | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 50.0% | 0.0% | 0.0% | 50.0% | 100.0% |
| | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 2.6% | 0.0% | 0.0% | 10.0% | 0.9% |
| TOTAL | 19 | 7 | 1 | 27 | 34 | 73 | 1 | 38 | 2 | 5 | 10 | 217 |
| | 8.8% | 3.2% | 0.5% | 12.4% | 15.7% | 33.6% | 0.5% | 17.5% | 0.9% | 2.3% | 4.6% | 100.0% |
| | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

Table B-7

EMPLOYMENT STATUS of CHEMISTS by Citizenship and Degree
1980 Starting Salary Survey

| EMPLOYMENT STATUS | CITIZENSHIP | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Bachelors | | | | | Masters | | | | | Doctorate | | | | |
| | US Citizen | Permanent Resident | Other | No Response | TOTAL | US Citizen | Permanent Resident | Other | No Response | TOTAL | US Citizen | Permanent Resident | Other | No Response | TOTAL |
| Full-time in Chemistry | 389<br>95.8%<br>24.7% | 12<br>3.0%<br>37.5% | 3<br>0.7%<br>20.0% | 2<br>0.5%<br>66.7% | 406<br>100.0%<br>25.0% | 70<br>97.2%<br>44.9% | 1<br>1.4%<br>16.7% | 1<br>1.4%<br>8.3% | 0<br>0.0%<br>***.*% | 72<br>100.0%<br>41.4% | 114<br>92.7%<br>64.0% | 6<br>4.9%<br>66.7% | 3<br>2.4%<br>27.3% | 0<br>0.0%<br>***.*% | 123 -Count<br>100.0% -% of Row<br>62.1% -% of Col |
| Full-time in Non-Chemistry | 131<br>98.5%<br>8.3% | 2<br>1.5%<br>6.3% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>0.0% | 133<br>100.0%<br>8.2% | 9<br>90.0%<br>5.8% | 0<br>0.0%<br>0.0% | 1<br>10.0%<br>8.3% | 0<br>0.0%<br>***.*% | 10<br>100.0%<br>5.7% | 7<br>100.0%<br>3.9% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 7<br>100.0%<br>3.5% |
| Assistantship, Postdoctoral or Other Fellowship | 420<br>96.8%<br>26.6% | 9<br>2.1%<br>28.1% | 5<br>1.2%<br>33.3% | 0<br>0.0%<br>0.0% | 434<br>100.0%<br>26.7% | 56<br>84.8%<br>35.9% | 3<br>4.5%<br>50.0% | 7<br>10.6%<br>58.3% | 0<br>0.0%<br>***.*% | 66<br>100.0%<br>37.9% | 48<br>82.8%<br>27.0% | 2<br>3.4%<br>22.2% | 8<br>13.8%<br>72.7% | 0<br>0.0%<br>***.*% | 58<br>100.0%<br>29.3% |
| Unemployed and Seeking Employment | 151<br>98.7%<br>9.6% | 2<br>1.3%<br>6.3% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>0.0% | 153<br>100.0%<br>9.4% | 6<br>75.0%<br>3.8% | 1<br>12.5%<br>16.7% | 1<br>12.5%<br>8.3% | 0<br>0.0%<br>***.*% | 8<br>100.0%<br>4.6% | 6<br>85.7%<br>3.4% | 1<br>14.3%<br>11.1% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 7<br>100.0%<br>3.5% |
| Unemployed and Not Seeking Employment | 424<br>98.4%<br>26.9% | 3<br>0.7%<br>9.4% | 4<br>0.9%<br>26.7% | 0<br>0.0%<br>0.0% | 431<br>100.0%<br>26.5% | 11<br>100.0%<br>7.1% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 11<br>100.0%<br>6.3% | 1<br>100.0%<br>0.6% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 1<br>100.0%<br>0.5% |
| No Response | 61<br>88.4%<br>3.9% | 4<br>5.8%<br>12.5% | 3<br>4.3%<br>20.0% | 1<br>1.4%<br>33.3% | 69<br>100.0%<br>4.2% | 4<br>57.1%<br>2.6% | 1<br>14.3%<br>16.7% | 2<br>28.6%<br>16.7% | 0<br>0.0%<br>***.*% | 7<br>100.0%<br>4.0% | 2<br>100.0%<br>1.1% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 2<br>100.0%<br>1.0% |
| TOTAL | 1,576<br>96.9%<br>100.0% | 32<br>2.0%<br>100.0% | 15<br>0.9%<br>100.0% | 3<br>0.2%<br>100.0% | 1,626<br>100.0%<br>100.0% | 156<br>89.7%<br>100.0% | 6<br>3.4%<br>100.0% | 12<br>6.9%<br>100.0% | 0<br>0.0%<br>***.*% | 174<br>100.0%<br>100.0% | 178<br>89.9%<br>100.0% | 9<br>4.5%<br>100.0% | 11<br>5.6%<br>100.0% | 0<br>0.0%<br>***.*% | 198<br>100.0%<br>100.0% |

ADVANCED STUDY PLANS
FALL 1980

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Full-time | 912<br>96.8%<br>57.9% | 18<br>1.9%<br>56.3% | 11<br>1.2%<br>73.3% | 1<br>0.1%<br>33.3% | 942<br>100.0%<br>57.9% | 75<br>86.2%<br>48.1% | 3<br>3.4%<br>50.0% | 9<br>10.3%<br>75.0% | 0<br>0.0%<br>***.*% | 87<br>100.0%<br>50.0% | 10<br>83.3%<br>5.6% | 0<br>0.0%<br>0.0% | 2<br>16.7%<br>18.2% | 0<br>0.0%<br>***.*% | 12<br>100.0%<br>6.1% |
| Part-time | 191<br>94.6%<br>12.1% | 8<br>4.0%<br>25.0% | 2<br>1.0%<br>13.3% | 1<br>0.5%<br>33.3% | 202<br>100.0%<br>12.4% | 15<br>100.0%<br>9.6% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 15<br>100.0%<br>8.6% | 9<br>100.0%<br>5.1% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 9<br>100.0%<br>4.5% |
| No Plans | 462<br>98.1%<br>29.3% | 6<br>1.3%<br>18.8% | 2<br>0.4%<br>13.3% | 1<br>0.2%<br>33.3% | 471<br>100.0%<br>29.0% | 63<br>92.6%<br>40.4% | 3<br>4.4%<br>50.0% | 2<br>2.9%<br>16.7% | 0<br>0.0%<br>***.*% | 68<br>100.0%<br>39.1% | 155<br>89.6%<br>87.1% | 9<br>5.2%<br>100.0% | 9<br>5.2%<br>81.8% | 0<br>0.0%<br>***.*% | 173<br>100.0%<br>87.4% |
| No Response | 11<br>100.0%<br>0.7% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>0.0% | 11<br>100.0%<br>0.7% | 3<br>75.0%<br>1.9% | 0<br>0.0%<br>0.0% | 1<br>25.0%<br>8.3% | 0<br>0.0%<br>***.*% | 4<br>100.0%<br>2.3% | 4<br>100.0%<br>2.2% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 4<br>100.0%<br>2.0% |
| TOTAL | 1,576<br>96.9%<br>100.0% | 32<br>2.0%<br>100.0% | 15<br>0.9%<br>100.0% | 3<br>0.2%<br>100.0% | 1,626<br>100.0%<br>100.0% | 156<br>89.7%<br>100.0% | 6<br>3.4%<br>100.0% | 12<br>6.9%<br>100.0% | 0<br>0.0%<br>***.*% | 174<br>100.0%<br>100.0% | 178<br>89.9%<br>100.0% | 9<br>4.5%<br>100.0% | 11<br>5.6%<br>100.0% | 0<br>0.0%<br>***.*% | 198<br>100.0%<br>100.0% |

Table B-8

EMPLOYMENT STATUS of MINORITY CHEMISTS by Degree
1980 Starting Salary Survey

HIGHEST DEGREE

| EMPLOYMENT STATUS | B.S. | M.S. | Ph.D. | No Response | TOTAL | |
|---|---|---|---|---|---|---|
| Full-time in Chemistry | 39 | 5 | 13 | 0 | 57 | -Count |
| | 68.4% | 8.8% | 22.8% | 0.0% | 100.0% | -% of Row |
| | 30.7% | 17.2% | 50.0% | ***.*% | 31.3% | -% of Col |
| Full-time in Non-Chemistry | 10 | 2 | 0 | 0 | 12 | |
| | 83.3% | 16.7% | 0.0% | 0.0% | 100.0% | |
| | 7.9% | 6.9% | 0.0% | ***.*% | 6.6% | |
| Assistantship, Postdoctoral or Other Fellowship | 28 | 16 | 10 | 0 | 54 | |
| | 51.9% | 29.6% | 18.5% | 0.0% | 100.0% | |
| | 22.0% | 55.2% | 38.5% | ***.*% | 29.7% | |
| Unemployed and Seeking Employment | 9 | 2 | 1 | 0 | 12 | |
| | 75.0% | 16.7% | 8.3% | 0.0% | 100.0% | |
| | 7.1% | 6.9% | 3.8% | ***.*% | 6.6% | |
| Unemployed and Not Seeking Employment | 30 | 1 | 1 | 0 | 32 | |
| | 93.8% | 3.1% | 3.1% | 0.0% | 100.0% | |
| | 23.6% | 3.4% | 3.8% | ***.*% | 17.6% | |
| No Response | 11 | 3 | 1 | 0 | 15 | |
| | 73.3% | 20.0% | 6.7% | 0.0% | 100.0% | |
| | 8.7% | 10.3% | 3.8% | ***.*% | 8.2% | |
| TOTAL | 127 | 29 | 26 | 0 | 182 | |
| | 69.8% | 15.9% | 14.3% | 0.0% | 100.0% | |
| | 100.0% | 100.0% | 100.0% | ***.*% | 100.0% | |

ADVANCED STUDY PLANS
FALL 1980

| | | | | | |
|---|---|---|---|---|---|
| Full-time | 74 | | | | |
| | 76.3% | 21.6% | 2.1% | 0.0% | 100.0% |
| | 58.3% | 72.4% | 7.7% | ***.*% | 53.3% |
| Part-time | 22 | 1 | 1 | 0 | 24 |
| | 91.7% | 4.2% | 4.2% | 0.0% | 100.0% |
| | 17.3% | 3.4% | 3.8% | ***.*% | 13.2% |
| No Plans | 31 | 6 | 23 | 0 | 60 |
| | 51.7% | 10.0% | 38.3% | 0.0% | 100.0% |
| | 24.4% | 20.7% | 88.5% | ***.*% | 33.0% |
| No Response | 0 | 1 | 0 | 0 | 1 |
| | 0.0% | 100.0% | 0.0% | 0.0% | 100.0% |
| | 0.0% | 3.4% | 0.0% | ***.*% | 0.5% |
| TOTAL | 127 | 29 | 26 | 0 | 182 |
| | 69.8% | 15.9% | 14.3% | 0.0% | 100.0% |
| | 100.0% | 100.0% | 100.0% | ***.*% | 100.0% |

Table B-9

EMPLOYMENT STATUS of B.S. CHEMICAL ENGINEERS by Experience
1980 Starting Salary Survey

| EMPLOYMENT STATUS | PROFESSIONAL EXPERIENCE | | | | TOTAL | |
|---|---|---|---|---|---|---|
| | < 12 Months | 12-36 Months | >36 Months | No Response | | |
| Full-time in Chemistry | 498 | 92 | 13 | 3 | 606 | -Count |
| | 82.2% | 15.2% | 2.1% | 0.5% | 100.0% | -% of Row |
| | 78.4% | 78.6% | 86.7% | 3.5% | 71.1% | -% of Col |
| Full-time in Non-chemistry | 55 | 7 | 1 | 1 | 64 | |
| | 85.9% | 10.9% | 1.6% | 1.6% | 100.0% | |
| | 8.7% | 6.0% | 6.7% | 1.2% | 7.5% | |
| Assistantship, Postdoctoral or Other Fellowship | 70 | 16 | 0 | 13 | 99 | |
| | 70.7% | 16.2% | 0.0% | 13.1% | 100.0% | |
| | 11.0% | 13.7% | 0.0% | 15.3% | 11.6% | |
| Unemployed and Seeking Employment | 5 | 0 | 1 | 37 | 43 | |
| | 11.6% | 0.0% | 2.3% | 86.0% | 100.0% | |
| | 0.8% | 0.0% | 6.7% | 43.5% | 5.0% | |
| Unemployed ant Not Seeking Employment | 6 | 0 | 0 | 28 | 34 | |
| | 17.6% | 0.0% | 0.0% | 82.4% | 100.0% | |
| | 0.9% | 0.0% | 0.0% | 32.9% | 4.0% | |
| No Response | 1 | 2 | 0 | 3 | 6 | |
| | 16.7% | 33.3% | 0.0% | 50.0% | 100.0% | |
| | 0.2% | 1.7% | 0.0% | 3.5% | 0.7% | |
| TOTAL | 635 | 117 | 15 | 85 | 852 | |
| | 74.5% | 13.7% | 1.8% | 10.0% | 100.0% | |
| | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | |

Table B-10

EMPLOYMENT STATUS of M.S. CHEMICAL ENGINEERS by EXPERIENCE
1980 Starting Salary Survey

PROFESSIONAL EXPERIENCE

| EMPLOYMENT STATUS | < 12 Months | 12-36 Months | >36 Months | No Response | TOTAL | |
|---|---|---|---|---|---|---|
| Full-time in Chemistry | 44 | 23 | 8 | 1 | 76 | -Count |
| | 57.9% | 30.3% | 10.5% | 1.3% | 100.0% | -% of Row |
| | 84.6% | 85.2% | 88.9% | 12.5% | 79.2% | -% of Col |
| Full-time in Non-chemistry | 1 | 1 | 0 | 0 | 2 | |
| | 50.0% | 50.0% | 0.0% | 0.0% | 100.0% | |
| | 1.9% | 3.7% | 0.0% | 0.0% | 2.1% | |
| Assistantship, Postdoctoral or Other Fellowship | 4 | 3 | 1 | 3 | 11 | |
| | 36.4% | 27.3% | 9.1% | 27.3% | 100.0% | |
| | 7.7% | 11.1% | 11.1% | 37.5% | 11.5% | |
| Unemployed and Seeking Employment | 0 | 0 | 0 | 3 | 3 | |
| | 0.0% | 0.0% | 0.0% | 100.0% | 100.0% | |
| | 0.0% | 0.0% | 0.0% | 37.5% | 3.1% | |
| Unemployed and not Seeking Employment | 2 | 0 | 0 | 0 | 2 | |
| | 100.0% | 0.0% | 0.0% | 0.0% | 100.0% | |
| | 3.8% | 0.0% | 0.0% | 0.0% | 2.1% | |
| No Response | 1 | 0 | 0 | 1 | 2 | |
| | 50.0% | 0.0% | 0.0% | 50.0% | 100.0% | |
| | 1.9% | 0.0% | 0.0% | 12.5% | 2.1% | |
| TOTAL | 52 | 27 | 9 | 8 | 96 | |
| | 54.2% | 28.1% | 9.4% | 8.3% | 100.0% | |
| | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | |

Table B-11

EMPLOYMENT STATUS of Ph.D. CHEMICAL ENGINEERS by Experience
1980 Starting Salary Survey

| EMPLOYMENT STATUS | PROFESSIONAL EXPERIENCE | | | | TOTAL | |
|---|---|---|---|---|---|---|
| | < 12 Months | 12-36 Months | >36 Months | No Response | | |
| Full-time in Chemistry | 25 | 8 | 3 | 0 | 36 | -Count |
| | 69.4% | 22.2% | 8.3% | 0.0% | 100.0% | -% of Row |
| | 89.3% | 100.0% | 100.0% | 0.0% | 90.0% | -% of Col |
| Full-time in Non-chemistry | 0 | 0 | 0 | 0 | 0 | |
| | ***.*% | ***.*% | ***.*% | ***.*% | ***.*% | |
| | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | |
| Assistantship, Postdoctoral or Other Fellowship | 0 | 0 | 0 | 0 | 0 | |
| | ***.*% | ***.*% | ***.*% | ***.*% | ***.*% | |
| | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | |
| Unemployed and Seeking Employment | 0 | 0 | 0 | 1 | 1 | |
| | 0.0% | 0.0% | 0.0% | 100.0% | 100.0% | |
| | 0.0% | 0.0% | 0.0% | 100.0% | 2.5% | |
| Unemployed and Not Seeking Employment | 1 | 0 | 0 | 0 | 1 | |
| | 100.0% | 0.0% | 0.0% | 0.0% | 100.0% | |
| | 3.6% | 0.0% | 0.0% | 0.0% | 2.5% | |
| No Response | 2 | 0 | 0 | 0 | 2 | |
| | 100.0% | 0.0% | 0.0% | 0.0% | 100.0% | |
| | 7.1% | 0.0% | 0.0% | 0.0% | 5.0% | |
| TOTAL | 28 | 8 | 3 | 1 | 40 | |
| | 70.0% | 20.0% | 7.5% | 2.5% | 100.0% | |
| | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | |

Table B-12

EMPLOYMENT STATUS of CHEMICAL ENGINEERS by Degree and Sex
1980 Starting Salary Survey

| EMPLOYMENT STATUS | SEX | Bachelors | | | Masters | | | | Doctorate | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Men | Women | No Response | TOTAL | Men | Women | No Response | TOTAL | Men | Women | No Response | TOTAL | |
| Full-time in Chemistry | 450 | 133 | 1 | 584 | 60 | 14 | 0 | 74 | 35 | 1 | 0 | 36 | -Count |
| | 77.1% | 22.8% | 0.2% | 100.0% | 81.1% | 18.9% | 0.0% | 100.0% | 97.2% | 2.8% | 0.0% | 100.0% | -% of Row |
| | 69.8% | 74.7% | 100.0% | 70.9% | 77.9% | 82.4% | ***.*% | 78.7% | 92.1% | 50.0% | ***.*% | 90.0% | -% of Col |
| Full-time in Non-Chemistry | 50 | 13 | 0 | 63 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | |
| | 79.4% | 20.6% | 0.0% | 100.0% | 100.0% | 0.0% | 0.0% | 100.0% | ***.*% | ***.*% | ***.*% | ***.*% | |
| | 7.8% | 7.3% | 0.0% | 7.6% | 2.6% | 0.0% | ***.*% | 2.1% | 0.0% | 0.0% | ***.*% | 0.0% | |
| Assistantship, Postdoctoral or Other Fellowship | 76 | 19 | 0 | 95 | 9 | 2 | 0 | 11 | 0 | 0 | 0 | 0 | |
| | 80.0% | 20.0% | 0.0% | 100.0% | 81.8% | 18.2% | 0.0% | 100.0% | ***.*% | ***.*% | ***.*% | ***.*% | |
| | 11.8% | 10.7% | 0.0% | 11.5% | 11.7% | 11.8% | ***.*% | 11.7% | 0.0% | 0.0% | ***.*% | 0.0% | |
| Unemployed and Seeking Employment | 34 | 8 | 0 | 42 | 3 | 0 | 0 | 3 | 1 | 0 | 0 | 1 | |
| | 81.0% | 19.0% | 0.0% | 100.0% | 100.0% | 0.0% | 0.0% | 100.0% | 100.0% | 0.0% | 0.0% | 100.0% | |
| | 5.3% | 4.5% | 0.0% | 5.1% | 3.9% | 0.0% | ***.*% | 3.2% | 2.6% | 0.0% | ***.*% | 2.5% | |
| Unemployed and Not Seeking Employment | 30 | 4 | 0 | 34 | 1 | 1 | 0 | 2 | 1 | 0 | 0 | 1 | |
| | 88.2% | 11.8% | 0.0% | 100.0% | 50.0% | 50.0% | 0.0% | 100.0% | 100.0% | 0.0% | 0.0% | 100.0% | |
| | 4.7% | 2.2% | 0.0% | 4.1% | 1.3% | 5.9% | ***.*% | 2.1% | 2.6% | 0.0% | ***.*% | 2.5% | |
| No Response | 5 | 1 | 0 | 6 | 2 | 0 | 0 | 2 | 1 | 1 | 0 | 2 | |
| | 83.3% | 16.7% | 0.0% | 100.0% | 100.0% | 0.0% | 0.0% | 100.0% | 50.0% | 50.0% | 0.0% | 100.0% | |
| | 0.8% | 0.6% | 0.0% | 0.7% | 2.6% | 0.0% | ***.*% | 2.1% | 2.6% | 50.0% | ***.*% | 5.0% | |
| TOTAL | 645 | 178 | 1 | 824 | 77 | 17 | 0 | 94 | 38 | 2 | 0 | 40 | |
| | 78.3% | 21.6% | 0.1% | 100.0% | 81.9% | 18.1% | 0.0% | 100.0% | 95.0% | 5.0% | 0.0% | 100.0% | |
| | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | ***.*% | 100.0% | 100.0% | 100.0% | ***.*% | 100.0% | |
| ADVANCED STUDY PLAN FALL 1980 | | | | | | | | | | | | | |
| Full-time | 108 | 18 | 0 | 126 | 14 | 3 | 0 | 17 | 0 | 0 | 0 | 0 | |
| | 85.7% | 14.3% | 0.0% | 100.0% | 82.4% | 17.6% | 0.0% | 100.0% | ***.*% | ***.*% | ***.*% | ***.*% | |
| | 16.7% | 10.1% | 0.0% | 15.3% | 18.2% | 17.6% | ***.*% | 18.1% | 0.0% | 0.0% | ***.*% | 0.0% | |
| Part-time | 168 | 42 | 1 | 211 | 15 | 1 | 0 | 16 | 0 | 0 | 0 | 0 | |
| | 79.6% | 19.9% | 0.5% | 100.0% | 93.8% | 6.3% | 0.0% | 100.0% | ***.*% | ***.*% | ***.*% | ***.*% | |
| | 26.0% | 23.6% | 100.0% | 25.6% | 19.5% | 5.9% | ***.*% | 17.0% | 0.0% | 0.0% | ***.*% | 0.0% | |
| No Plans | 361 | 116 | 0 | 477 | 47 | 13 | 0 | 60 | 36 | 2 | 0 | 38 | |
| | 75.7% | 24.3% | 0.0% | 100.0% | 78.3% | 21.7% | 0.0% | 100.0% | 94.7% | 5.3% | 0.0% | 100.0% | |
| | 56.0% | 65.2% | 0.0% | 57.9% | 61.0% | 76.5% | ***.*% | 63.8% | 94.7% | 100.0% | ***.*% | 95.0% | |
| No Response | 8 | 2 | 0 | 10 | 1 | 0 | 0 | 1 | 2 | 0 | 0 | 2 | |
| | 80.0% | 20.0% | 0.0% | 100.0% | 100.0% | 0.0% | 0.0% | 100.0% | 100.0% | 0.0% | 0.0% | 100.0% | |
| | 1.2% | 1.1% | 0.0% | 1.2% | 1.3% | 0.0% | ***.*% | 1.1% | 5.3% | 0.0% | ***.*% | 5.0% | |
| TOTAL | 645 | 178 | 1 | 824 | 77 | 17 | 0 | 94 | 38 | 2 | 0 | 40 | |
| | 78.3% | 21.6% | 0.1% | 100.0% | 81.9% | 18.1% | 0.0% | 100.0% | 95.0% | 5.0% | 0.0% | 100.0% | |
| | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | ***.*% | 100.0% | 100.0% | 100.0% | ***.*% | 100.0% | |

Table B-13

EMPLOYMENT STATUS of CHEMICAL ENGINEERS by Citizenship and Degree
1980 Starting Salary Survey

| EMPLOYMENT STATUS | CITIZENSHIP | Bachelors | | | | | | | | | Doctorate | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | US Citizen | Perm. Resident | Other | No Response | TOTAL | US Citizen | Perm. Resident | Other | No Response | TOTAL | US Citizen | Perm. Resident | Other | No Response | TOTAL |
| Full-time in Chemistry | 568<br>97.3%<br>71.2% | 13<br>2.2%<br>68.4% | 1<br>0.2%<br>20.0% | 2<br>0.3%<br>100.0% | 584<br>100.0%<br>70.9% | 67<br>90.5%<br>87.0% | 3<br>4.1%<br>60.0% | 4<br>5.4%<br>33.3% | 0<br>0.0%<br>***.*% | 74<br>100.0%<br>78.7% | 23<br>63.9%<br>92.0% | 6<br>16.7%<br>85.7% | 7<br>19.4%<br>87.5% | 0<br>0.0%<br>***.*% | 36 -Count<br>100.0% -% of Row<br>90.0% -% of Col |
| Full-time in Non-Chemistry | 60<br>95.2%<br>7.5% | 3<br>4.8%<br>15.8% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>0.0% | 63<br>100.0%<br>7.6% | 1<br>50.0%<br>1.3% | 1<br>50.0%<br>20.0% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 2<br>100.0%<br>2.1% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% |
| Assistantship, Postdoctoral or Other Fellowship | 90<br>94.7%<br>11.3% | 2<br>2.1%<br>10.5% | 3<br>3.2%<br>60.0% | 0<br>0.0%<br>0.0% | 95<br>100.0%<br>11.5% | 5<br>45.5%<br>6.5% | 1<br>9.1%<br>20.0% | 5<br>45.5%<br>41.7% | 0<br>0.0%<br>***.*% | 11<br>100.0%<br>11.7% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% |
| Unemployed and Seeking Employment | 42<br>100.0%<br>5.3% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>0.0% | 42<br>100.0%<br>5.1% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>0.0% | 3<br>100.0%<br>25.0% | 0<br>0.0%<br>***.*% | 3<br>100.0%<br>3.2% | 1<br>100.0%<br>4.0% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 1<br>100.0%<br>2.5% |
| Unemployed and Not Seeking Employment | 33<br>97.1%<br>4.1% | 0<br>0.0%<br>0.0% | 1<br>2.9%<br>20.0% | 0<br>0.0%<br>0.0% | 34<br>100.0%<br>4.1% | 2<br>100.0%<br>2.6% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 2<br>100.0%<br>2.1% | 1<br>100.0%<br>4.0% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 1<br>100.0%<br>2.5% |
| No Response | 5<br>83.3%<br>0.6% | 1<br>16.7%<br>5.3% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>0.0% | 6<br>100.0%<br>0.7% | 2<br>100.0%<br>2.6% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 2<br>100.0%<br>2.1% | 0<br>0.0%<br>0.0% | 1<br>50.0%<br>14.3% | 1<br>50.0%<br>12.5% | 0<br>0.0%<br>***.*% | 2<br>100.0%<br>5.0% |
| TOTAL | 798<br>96.8%<br>100.0% | 19<br>2.3%<br>100.0% | 5<br>0.6%<br>100.0% | 2<br>0.2%<br>100.0% | 824<br>100.0%<br>100.0% | 77<br>81.9%<br>100.0% | 5<br>5.3%<br>100.0% | 12<br>12.8%<br>100.0% | 0<br>0.0%<br>***.*% | 94<br>100.0%<br>100.0% | 25<br>62.5%<br>100.0% | 7<br>17.5%<br>100.0% | 8<br>20.0%<br>100.0% | 0<br>0.0%<br>***.*% | 40<br>100.0%<br>100.0% |
| ADVANCED STUDY PLANS FALL 1980 | | | | | | | | | | | | | | | |
| Full-time | 122<br>96.8%<br>15.3% | 2<br>1.6%<br>10.5% | 2<br>1.6%<br>40.0% | 0<br>0.0%<br>0.0% | 126<br>100.0%<br>15.3% | 9<br>52.9%<br>11.7% | 1<br>5.9%<br>20.0% | 7<br>41.2%<br>58.3% | 0<br>0.0%<br>***.*% | 17<br>100.0%<br>18.1% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% |
| Part-time | 202<br>95.7%<br>25.3% | 8<br>3.8%<br>42.1% | 1<br>0.5%<br>20.0% | 0<br>0.0%<br>0.0% | 211<br>100.0%<br>25.6% | 13<br>81.3%<br>16.9% | 1<br>6.3%<br>20.0% | 2<br>12.5%<br>16.7% | 0<br>0.0%<br>***.*% | 16<br>100.0%<br>17.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% |
| No Plans | 464<br>97.3%<br>58.1% | 9<br>1.9%<br>47.4% | 2<br>0.4%<br>40.0% | 2<br>0.4%<br>100.0% | 477<br>100.0%<br>57.9% | 55<br>91.7%<br>71.4% | 2<br>3.3%<br>40.0% | 3<br>5.0%<br>25.0% | 0<br>0.0%<br>***.*% | 60<br>100.0%<br>63.8% | 24<br>63.2%<br>96.0% | 7<br>18.4%<br>100.0% | 7<br>18.4%<br>87.5% | 0<br>0.0%<br>***.*% | 38<br>100.0%<br>95.0% |
| No Response | 10<br>100.0%<br>1.3% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>0.0% | 10<br>100.0%<br>1.2% | 0<br>0.0%<br>0.0% | 1<br>100.0%<br>20.0% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 1<br>100.0%<br>1.1% | 1<br>50.0%<br>4.0% | 0<br>0.0%<br>0.0% | 1<br>50.0%<br>12.5% | 0<br>0.0%<br>***.*% | 2<br>100.0%<br>5.0% |
| TOTAL | 798<br>96.8%<br>100.0% | 19<br>2.3%<br>100.0% | 5<br>0.6%<br>100.0% | 2<br>0.2%<br>100.0% | 824<br>100.0%<br>100.0% | 77<br>81.9%<br>100.0% | 5<br>5.3%<br>100.0% | 12<br>12.8%<br>100.0% | 0<br>0.0%<br>***.*% | 94<br>100.0%<br>100.0% | 25<br>62.5%<br>100.0% | 7<br>17.5%<br>100.0% | 8<br>20.0%<br>100.0% | 0<br>0.0%<br>***.*% | 40<br>100.0%<br>100.0% |

Table B-14

EMPLOYMENT STATUS of MINORITY CHEMICAL ENGINEERS by Degree
1980 Starting Salary Survey

| EMPLOYMENT STATUS | HIGHEST DEGREE B.S. | M.S. | Ph.D. | No Response | TOTAL |
|---|---|---|---|---|---|
| Full-time in Chemistry | 31<br>59.6%<br>57.4% | 11<br>21.2%<br>55.0% | 10<br>19.2%<br>83.3% | 0<br>0.0%<br>0.0% | 52 -Count<br>100.0% -% of Row<br>59.8% -% of Col |
| Full-time in Non-Chemistry | 6<br>85.7%<br>11.1% | 1<br>14.3%<br>5.0% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>0.0% | 7<br>100.0%<br>8.0% |
| Assistantship, Postdoctoral or Other Fellowship | 9<br>69.2%<br>16.7% | 4<br>30.8%<br>20.0% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>0.0% | 13<br>100.0%<br>14.9% |
| Unemployed and Seeking Employment | 4<br>57.1%<br>7.4% | 2<br>28.6%<br>10.0% | 0<br>0.0%<br>0.0% | 1<br>14.3%<br>100.0% | 7<br>100.0%<br>8.0% |
| Unemployed and Not Seeking Employment | 2<br>40.0%<br>3.7% | 2<br>40.0%<br>10.0% | 1<br>20.0%<br>8.3% | 0<br>0.0%<br>0.0% | 5<br>100.0%<br>5.7% |
| No Response | 2<br>66.7%<br>3.7% | 0<br>0.0%<br>0.0% | 1<br>33.3%<br>8.3% | 0<br>0.0%<br>0.0% | 3<br>100.0%<br>3.4% |
| TOTAL | 54<br>62.1%<br>100.0% | 20<br>23.0%<br>100.0% | 12<br>13.8%<br>100.0% | 1<br>1.1%<br>100.0% | 87<br>100.0%<br>100.0% |

| ADVANCED STUDY PLANS FALL 1980 | B.S. | M.S. | Ph.D. | No Response | TOTAL |
|---|---|---|---|---|---|
| Full-time | 11<br>57.9%<br>20.4% | 8<br>42.1%<br>40.0% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>0.0% | 19<br>100.0%<br>21.8% |
| Part-time | 17<br>89.5%<br>31.5% | 2<br>10.5%<br>10.0% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>0.0% | 19<br>100.0%<br>21.8% |
| No Plans | 26<br>54.2%<br>48.1% | 10<br>20.8%<br>50.0% | 11<br>22.9%<br>91.7% | 1<br>2.1%<br>100.0% | 48<br>100.0%<br>55.2% |
| No Response | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>0.0% | 1<br>100.0%<br>8.3% | 0<br>0.0%<br>0.0% | 1<br>100.0%<br>1.1% |
| TOTAL | 54<br>62.1%<br>100.0% | 20<br>23.0%<br>100.0% | 12<br>13.8%<br>100.0% | 1<br>1.1%<br>100.0% | 87<br>100.0%<br>100.0% |

Table C-1

FIELD of ADVANCED STUDIES of CHEMISTS WHO PLAN FULL-TIME OR PART-TIME STUDIES in FALL 1980 by Degree and Sex
1980 Starting Salary Survey

| STUDY FIELD | SEX | Bachelors | | | Masters | | | | Doctorate | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Men | Women | No Response | TOTAL | Men | Women | No Response | TOTAL | Men | Women | No Response | TOTAL |
| Chemistry | | 305<br>76.6%<br>36.2% | 93<br>23.4%<br>31.0% | 0<br>0.0%<br>0.0% | 398<br>100.0%<br>34.8% | 62<br>82.7%<br>74.7% | 13<br>17.3%<br>68.4% | 0<br>0.0%<br>***.*% | 75<br>100.0%<br>73.5% | 10<br>100.0%<br>55.6% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 10 -Count<br>100.0% -% of Row<br>47.6% -% of Col |
| Other Physical Science | | 15<br>83.3%<br>1.8% | 3<br>16.7%<br>1.0% | 0<br>0.0%<br>0.0% | 18<br>100.0%<br>1.6% | 2<br>66.7%<br>2.4% | 1<br>33.3%<br>5.3% | 0<br>0.0%<br>***.*% | 3<br>100.0%<br>2.9% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% |
| Chemical Engineering | | 38<br>69.1%<br>4.5% | 17<br>30.9%<br>5.7% | 0<br>0.0%<br>0.0% | 55<br>100.0%<br>4.8% | 3<br>60.0%<br>3.6% | 2<br>40.0%<br>10.5% | 0<br>0.0%<br>***.*% | 5<br>100.0%<br>4.9% | 2<br>66.7%<br>11.1% | 1<br>33.3%<br>33.3% | 0<br>0.0%<br>***.*% | 3<br>100.0%<br>14.3% |
| Other Engineering | | 9<br>56.3%<br>1.1% | 7<br>43.8%<br>2.3% | 0<br>0.0%<br>0.0% | 16<br>100.0%<br>1.4% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% |
| Biochemistry | | 37<br>68.5%<br>4.4% | 17<br>31.5%<br>5.7% | 0<br>0.0%<br>0.0% | 54<br>100.0%<br>4.7% | 2<br>66.7%<br>2.4% | 1<br>33.3%<br>5.3% | 0<br>0.0%<br>***.*% | 3<br>100.0%<br>2.9% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% |
| Life Science | | 15<br>71.4%<br>1.8% | 5<br>23.8%<br>1.7% | 1<br>4.8%<br>50.0% | 21<br>100.0%<br>1.8% | 1<br>100.0%<br>1.2% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 1<br>100.0%<br>1.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% |
| Medicine | | 246<br>75.2%<br>29.2% | 80<br>24.5%<br>26.7% | 1<br>0.3%<br>50.0% | 327<br>100.0%<br>28.6% | 7<br>100.0%<br>8.4% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 7<br>100.0%<br>6.9% | 0<br>0.0%<br>0.0% | 1<br>100.0%<br>33.3% | 0<br>0.0%<br>***.*% | 1<br>100.0%<br>4.8% |
| Dentistry | | 45<br>81.8%<br>5.3% | 10<br>18.2%<br>3.3% | 0<br>0.0%<br>0.0% | 55<br>100.0%<br>4.8% | 1<br>100.0%<br>1.2% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 1<br>100.0%<br>1.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% |
| Pharmacy | | 16<br>69.6%<br>1.9% | 7<br>30.4%<br>2.3% | 0<br>0.0%<br>0.0% | 23<br>100.0%<br>2.0% | 0<br>0.0%<br>0.0% | 1<br>100.0%<br>5.3% | 0<br>0.0%<br>***.*% | 1<br>100.0%<br>1.0% | 1<br>100.0%<br>5.6% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 1<br>100.0%<br>4.8% |
| Business | | 41<br>69.5%<br>4.9% | 18<br>30.5%<br>6.0% | 0<br>0.0%<br>0.0% | 59<br>100.0%<br>5.2% | 0<br>0.0%<br>0.0% | 1<br>100.0%<br>5.3% | 0<br>0.0%<br>***.*% | 1<br>100.0%<br>1.0% | 4<br>100.0%<br>22.2% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 4<br>100.0%<br>19.0% |
| Education | | 2<br>25.0%<br>0.2% | 6<br>75.0%<br>2.0% | 0<br>0.0%<br>0.0% | 8<br>100.0%<br>0.7% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% |
| Law | | 11<br>73.3%<br>1.3% | 4<br>26.7%<br>1.3% | 0<br>0.0%<br>0.0% | 15<br>100.0%<br>1.3% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% | 0<br>0.0%<br>0.0% | 1<br>100.0%<br>33.3% | 0<br>0.0%<br>***.*% | 1<br>100.0%<br>4.8% |
| Social Science | | 1<br>100.0%<br>0.1% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>0.0% | 1<br>100.0%<br>0.1% | 1<br>100.0%<br>1.2% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 1<br>100.0%<br>1.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% |
| Other | | 46<br>59.7%<br>5.5% | 31<br>40.3%<br>10.3% | 0<br>0.0%<br>0.0% | 77<br>100.0%<br>6.7% | 4<br>100.0%<br>4.8% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 4<br>100.0%<br>3.9% | 1<br>100.0%<br>5.6% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 1<br>100.0%<br>4.8% |
| No Response | | 15<br>88.2%<br>1.8% | 2<br>11.8%<br>0.7% | 0<br>0.0%<br>0.0% | 17<br>100.0%<br>1.5% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% |
| TOTAL | | 842<br>73.6%<br>100.0% | 300<br>26.2%<br>100.0% | 2<br>0.2%<br>100.0% | 1,144<br>100.0%<br>100.0% | 83<br>81.4%<br>100.0% | 19<br>18.6%<br>100.0% | 0<br>0.0%<br>***.*% | 102<br>100.0%<br>100.0% | 18<br>85.7%<br>100.0% | 3<br>14.3%<br>100.0% | 0<br>0.0%<br>***.*% | 21<br>100.0%<br>100.0% |

Table C-2

FIELD of ADVANCED STUDIES of B.S.CHEMISTS
WHO PLAN FULL-TIME OR PART-TIME STUDIES in FALL 1980 by Certification Status
1980 Starting Salary Survey

| STUDY FIELD | CERTIFICATION: Certified | Non-Cert. | No Response | TOTAL |
|---|---|---|---|---|
| Chemistry | 285<br>71.6%<br>51.0% | 112<br>28.1%<br>19.3% | 1<br>0.3%<br>25.0% | 398<br>100.0%<br>34.8% |
| Other Physical Science | 7<br>38.9%<br>1.3% | 11<br>61.1%<br>1.9% | 0<br>0.0%<br>0.0% | 18<br>100.0%<br>1.6% |
| Chemical Engineeering | 30<br>54.5%<br>5.4% | 25<br>45.5%<br>4.3% | 0<br>0.0%<br>0.0% | 55<br>100.0%<br>4.8% |
| Other Engineering | 9<br>56.3%<br>1.6% | 7<br>43.8%<br>1.2% | 0<br>0.0%<br>0.0% | 16<br>100.0%<br>1.4% |
| Biochemistry | 29<br>53.7%<br>5.2% | 24<br>44.4%<br>4.1% | 1<br>1.9%<br>25.0% | 54<br>100.0%<br>4.7% |
| Life Science | 6<br>28.6%<br>1.1% | 15<br>71.4%<br>2.6% | 0<br>0.0%<br>0.0% | 21<br>100.0%<br>1.8% |
| Medicine | 90<br>27.5%<br>16.1% | 235<br>71.9%<br>40.4% | 2<br>0.6%<br>50.0% | 327<br>100.0%<br>28.6% |
| Dentistry | 14<br>25.5%<br>2.5% | 41<br>74.5%<br>7.1% | 0<br>0.0%<br>0.0% | 55<br>100.0%<br>4.8% |
| Pharmacy | 10<br>43.5%<br>1.8% | 13<br>56.5%<br>2.2% | 0<br>0.0%<br>0.0% | 23<br>100.0%<br>2.0% |
| Business | 27<br>45.8%<br>4.8% | 32<br>54.2%<br>5.5% | 0<br>0.0%<br>0.0% | 59<br>100.0%<br>5.2% |
| Education | 1<br>12.5%<br>0.2% | 7<br>87.5%<br>1.2% | 0<br>0.0%<br>0.0% | 8<br>100.0%<br>0.7% |
| Law | 4<br>26.7%<br>0.7% | 11<br>73.3%<br>1.9% | 0<br>0.0%<br>0.0% | 15<br>100.0%<br>1.3% |
| Social Science | 0<br>0.0%<br>0.0% | 1<br>100.0%<br>0.2% | 0<br>0.0%<br>0.0% | 1<br>100.0%<br>0.1% |
| Other | 35<br>45.5%<br>6.3% | 42<br>54.5%<br>7.2% | 0<br>0.0%<br>0.0% | 77<br>100.0%<br>6.7% |
| No Response | 12<br>70.6%<br>2.1% | 5<br>29.4%<br>0.9% | 0<br>0.0%<br>0.0% | 17<br>100.0%<br>1.5% |
| TOTAL | 559<br>48.9%<br>100.0% | 581<br>50.8%<br>100.0% | 4<br>0.3%<br>100.0% | 1,144<br>100.0%<br>100.0% |

Table C-3

FIELD of ADVANCED STUDIES of CHEMICAL ENGINEERS WHO PLAN FULL-TIME OR PART-TIME STUDIES IN FALL, 1980 by Degree and Sex
1980 Starting Salary Survey

| STUDY FIELD | SEX Bachelors Men | Women | No Response | TOTAL | Masters Men | Women | No Response | TOTAL |
|---|---|---|---|---|---|---|---|---|
| Chemistry | 1<br>100.0%<br>0.4% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>0.0% | 1<br>100.0%<br>0.3% | 0<br>0.0%<br>0.0% | 1<br>100.0%<br>25.0% | 0<br>0.0%<br>***.*% | 1 -Count<br>100.0% -% of Row<br>3.0% -% of Col |
| Other Physical Science | 1<br>33.3%<br>0.4% | 2<br>66.7%<br>3.3% | 0<br>0.0%<br>0.0% | 3<br>100.0%<br>0.9% | 1<br>100.0%<br>3.4% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 1<br>100.0%<br>3.0% |
| Chemical Engineering | 119<br>82.1%<br>43.1% | 26<br>17.9%<br>43.3% | 0<br>0.0%<br>0.0% | 145<br>100.0%<br>43.0% | 15<br>88.2%<br>51.7% | 2<br>11.8%<br>50.0% | 0<br>0.0%<br>***.*% | 17<br>100.0%<br>51.5% |
| Other Engineering | 17<br>68.0%<br>6.2% | 8<br>32.0%<br>13.3% | 0<br>0.0%<br>0.0% | 25<br>100.0%<br>7.4% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% |
| Biochemistry | 2<br>100.0%<br>0.7% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>0.0% | 2<br>100.0%<br>0.6% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% |
| Life Science | 1<br>100.0%<br>0.4% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>0.0% | 1<br>100.0%<br>0.3% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% |
| Medicine | 16<br>88.9%<br>5.8% | 2<br>11.1%<br>3.3% | 0<br>0.0%<br>0.0% | 18<br>100.0%<br>5.3% | 2<br>100.0%<br>6.9% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 2<br>100.0%<br>6.1% |
| Dentistry | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 1<br>100.0%<br>3.4% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 1<br>100.0%<br>3.0% |
| Pharmacy | 1<br>100.0%<br>0.4% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>0.0% | 1<br>100.0%<br>0.3% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% |
| Business | 95<br>81.2%<br>34.4% | 21<br>17.9%<br>35.0% | 1<br>0.9%<br>100.0% | 117<br>100.0%<br>34.7% | 10<br>90.9%<br>34.5% | 1<br>9.1%<br>25.0% | 0<br>0.0%<br>***.*% | 11<br>100.0%<br>33.3% |
| Education | 1<br>100.0%<br>0.4% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>0.0% | 1<br>100.0%<br>0.3% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% |
| Law | 3<br>100.0%<br>1.1% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>0.0% | 3<br>100.0%<br>0.9% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% |
| Social Science | 6<br>85.7%<br>2.2% | 1<br>14.3%<br>1.7% | 0<br>0.0%<br>0.0% | 7<br>100.0%<br>2.1% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% |
| Other | 8<br>100.0%<br>2.9% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>0.0% | 8<br>100.0%<br>2.4% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% |
| No Response | 5<br>100.0%<br>1.8% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>0.0% | 5<br>100.0%<br>1.5% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% |
| TOTAL | 276<br>81.9%<br>100.0% | 60<br>17.8%<br>100.0% | 1<br>0.3%<br>100.0% | 337<br>100.0%<br>100.0% | 29<br>87.9%<br>100.0% | 4<br>12.1%<br>100.0% | 0<br>0.0%<br>***.*% | 33<br>100.0%<br>100.0% |

FIELD of ADVANCED STUDIES of CHEMISTS WHO PLAN FULL-TIME STUDIES by Degree and Sex
1980 Starting Salary Survey

| STUDY FIELD | SEX | Bachelors | | | Masters | | | | Doctorate | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Men | Women | No Response | TOTAL | Men | Women | No Response | TOTAL | Men | Women | No Response | TOTAL |
| Chemistry | 256<br>78.3%<br>35.7% | 71<br>21.7%<br>31.7% | 0<br>0.0%<br>0.0% | 327<br>100.0%<br>34.7% | 56<br>84.8%<br>74.7% | 10<br>15.2%<br>83.3% | 0<br>0.0%<br>***.*% | 66<br>100.0%<br>75.9% | 9<br>100.0%<br>81.8% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 9 -Count<br>100.0% -% of Row<br>75.0% -% of Col |
| Other Physical Science | 11<br>100.0%<br>1.5% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>0.0% | 11<br>100.0%<br>1.2% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% |
| Chemical Engineering | 28<br>71.8%<br>3.9% | 11<br>28.2%<br>4.9% | 0<br>0.0%<br>0.0% | 39<br>100.0%<br>4.1% | 3<br>75.0%<br>4.0% | 1<br>25.0%<br>8.3% | 0<br>0.0%<br>***.*% | 4<br>100.0%<br>4.6% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% |
| Other Engineering | 6<br>75.0%<br>0.8% | 2<br>25.0%<br>0.9% | 0<br>0.0%<br>0.0% | 8<br>100.0%<br>0.8% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% |
| Biochemistry | 29<br>69.0%<br>4.0% | 13<br>31.0%<br>5.8% | 0<br>0.0%<br>0.0% | 42<br>100.0%<br>4.5% | 2<br>66.7%<br>2.7% | 1<br>33.3%<br>8.3% | 0<br>0.0%<br>***.*% | 3<br>100.0%<br>3.4% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% |
| Life Science | 9<br>81.8%<br>1.3% | 2<br>18.2%<br>0.9% | 0<br>0.0%<br>0.0% | 11<br>100.0%<br>1.2% | 1<br>100.0%<br>1.3% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 1<br>100.0%<br>1.1% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% |
| Medicine | 245<br>75.9%<br>34.2% | 77<br>23.8%<br>34.4% | 1<br>0.3%<br>100.0% | 323<br>100.0%<br>34.3% | 7<br>100.0%<br>9.3% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 7<br>100.0%<br>8.0% | 0<br>0.0%<br>0.0% | 1<br>100.0%<br>100.0% | 0<br>0.0%<br>***.*% | 1<br>100.0%<br>8.3% |
| Dentistry | 44<br>81.5%<br>6.1% | 10<br>18.5%<br>4.5% | 0<br>0.0%<br>0.0% | 54<br>100.0%<br>5.7% | 1<br>100.0%<br>1.3% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 1<br>100.0%<br>1.1% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% |
| Pharmacy | 16<br>80.0%<br>2.2% | 4<br>20.0%<br>1.8% | 0<br>0.0%<br>0.0% | 20<br>100.0%<br>2.1% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% | 1<br>100.0%<br>9.1% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 1<br>100.0%<br>8.3% |
| Business | 15<br>75.0%<br>2.1% | 5<br>25.0%<br>2.2% | 0<br>0.0%<br>0.0% | 20<br>100.0%<br>2.1% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% |
| Education | 1<br>33.3%<br>0.1% | 2<br>66.7%<br>0.9% | 0<br>0.0%<br>0.0% | 3<br>100.0%<br>0.3% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% |
| Law | 11<br>78.6%<br>1.5% | 3<br>21.4%<br>1.3% | 0<br>0.0%<br>0.0% | 14<br>100.0%<br>1.5% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% |
| Social Science | 1<br>100.0%<br>0.1% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>0.0% | 1<br>100.0%<br>0.1% | 1<br>100.0%<br>1.3% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 1<br>100.0%<br>1.1% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% |
| Other | 34<br>58.6%<br>4.7% | 24<br>41.4%<br>10.7% | 0<br>0.0%<br>0.0% | 58<br>100.0%<br>6.2% | 4<br>100.0%<br>5.3% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 4<br>100.0%<br>4.6% | 1<br>100.0%<br>9.1% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 1<br>100.0%<br>8.3% |
| No Response | 11<br>100.0%<br>1.5% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>0.0% | 11<br>100.0%<br>1.2% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% |
| TOTAL | 717<br>76.1%<br>100.0% | 224<br>23.8%<br>100.0% | 1<br>0.1%<br>100.0% | 942<br>100.0%<br>100.0% | 75<br>86.2%<br>100.0% | 12<br>13.8%<br>100.0% | 0<br>0.0%<br>***.*% | 87<br>100.0%<br>100.0% | 11<br>91.7%<br>100.0% | 1<br>8.3%<br>100.0% | 0<br>0.0%<br>***.*% | 12<br>100.0%<br>100.0% |

Table C-5

FIELD of ADVANCED STUDIES of B.S. CHEMISTS WHO PLAN FULL-TIME STUDIES by Certification
1980 Starting Salary Survey

| STUDY FIELD | CERTIFICATION: Certified | Non-Cert. | No Response | TOTAL |
|---|---|---|---|---|
| Chemistry | 237<br>72.5%<br>52.5% | 89<br>27.2%<br>18.3% | 1<br>0.3%<br>25.0% | 327 -Count<br>100.0% -% of Row<br>34.7% -% of Col |
| Other Physical Science | 3<br>27.3%<br>0.7% | 8<br>72.7%<br>1.6% | 0<br>0.0%<br>0.0% | 11<br>100.0%<br>1.2% |
| Chemical Engineering | 20<br>51.3%<br>4.4% | 19<br>48.7%<br>3.9% | 0<br>0.0%<br>0.0% | 39<br>100.0%<br>4.1% |
| Other Engineering | 5<br>62.5%<br>1.1% | 3<br>37.5%<br>0.6% | 0<br>0.0%<br>0.0% | 8<br>100.0%<br>0.8% |
| Biochemistry | 25<br>59.5%<br>5.5% | 16<br>38.1%<br>3.3% | 1<br>2.4%<br>25.0% | 42<br>100.0%<br>4.5% |
| Life Science | 3<br>27.3%<br>0.7% | 8<br>72.7%<br>1.6% | 0<br>0.0%<br>0.0% | 11<br>100.0%<br>1.2% |
| Medicine | 88<br>27.2%<br>19.5% | 233<br>72.1%<br>47.8% | 2<br>0.6%<br>50.0% | 323<br>100.0%<br>34.3% |
| Dentistry | 14<br>25.9%<br>3.1% | 40<br>74.1%<br>8.2% | 0<br>0.0%<br>0.0% | 54<br>100.0%<br>5.7% |
| Pharmacy | 9<br>45.0%<br>2.0% | 11<br>55.0%<br>2.3% | 0<br>0.0%<br>0.0% | 20<br>100.0%<br>2.1% |
| Business | 10<br>50.0%<br>2.2% | 10<br>50.0%<br>2.1% | 0<br>0.0%<br>0.0% | 20<br>100.0%<br>2.1% |
| Education | 0<br>0.0%<br>0.0% | 3<br>100.0%<br>0.6% | 0<br>0.0%<br>0.0% | 3<br>100.0%<br>0.3% |
| Law | 3<br>21.4%<br>0.7% | 11<br>78.6%<br>2.3% | 0<br>0.0%<br>0.0% | 14<br>100.0%<br>1.5% |
| Social Science | 0<br>0.0%<br>0.0% | 1<br>100.0%<br>0.2% | 0<br>0.0%<br>0.0% | 1<br>100.0%<br>0.1% |
| Other | 26<br>44.8%<br>5.8% | 32<br>55.2%<br>6.6% | 0<br>0.0%<br>0.0% | 58<br>100.0%<br>6.2% |
| No Response | 8<br>72.7%<br>1.8% | 3<br>27.3%<br>0.6% | 0<br>0.0%<br>0.0% | 11<br>100.0%<br>1.2% |
| TOTAL | 451<br>47.9%<br>100.0% | 487<br>51.7%<br>100.0% | 4<br>0.4%<br>100.0% | 942<br>100.0%<br>100.0% |



Table C-6

FIELD of ADVANCED STUDIES of CHEMICAL ENGINEERS WHO PLAN FULL-TIME STUDIES IN FALL 1980 by Degree and Sex
1980 Starting Salary Survey

| STUDY FIELD | SEX: Bachelors Men | Women | No Response | TOTAL | Masters Men | Women | No Response | TOTAL |
|---|---|---|---|---|---|---|---|---|
| Chemistry | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% | 0<br>0.0%<br>0.0% | 1<br>100.0%<br>33.3% | 0<br>0.0%<br>***.*% | 1<br>100.0%<br>5.9% |
| Other Physical Science | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% |
| Chemical Engineering | 69<br>84.1%<br>63.9% | 13<br>15.9%<br>72.2% | 0<br>0.0%<br>***.*% | 82<br>100.0%<br>65.1% | 11<br>84.6%<br>78.6% | 2<br>15.4%<br>66.7% | 0<br>0.0%<br>***.*% | 13<br>100.0%<br>76.5% |
| Other Engineering | 8<br>72.7%<br>7.4% | 3<br>27.3%<br>16.7% | 0<br>0.0%<br>***.*% | 11<br>100.0%<br>8.7% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% |
| Biochemistry | 1<br>100.0%<br>0.9% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 1<br>100.0%<br>0.8% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% |
| Life Science | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% |
| Medicine | 15<br>88.2%<br>13.9% | 2<br>11.8%<br>11.1% | 0<br>0.0%<br>***.*% | 17<br>100.0%<br>13.5% | 2<br>100.0%<br>14.3% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 2<br>100.0%<br>11.8% |
| Dentistry | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% | 1<br>100.0%<br>7.1% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 1<br>100.0%<br>5.9% |
| Pharmacy | 1<br>100.0%<br>0.9% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 1<br>100.0%<br>0.8% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% |
| Business | 6<br>100.0%<br>5.6% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 6<br>100.0%<br>4.8% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% |
| Education | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% |
| Law | 3<br>100.0%<br>2.8% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 3<br>100.0%<br>2.4% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% |
| Social Science | 1<br>100.0%<br>0.9% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 1<br>100.0%<br>0.8% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% |
| Other | 2<br>100.0%<br>1.9% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 2<br>100.0%<br>1.6% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% |
| No Response | 2<br>100.0%<br>1.9% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 2<br>100.0%<br>1.6% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% |
| TOTAL | 108<br>85.7%<br>100.0% | 18<br>14.3%<br>100.0% | 0<br>0.0%<br>***.*% | 126<br>100.0%<br>100.0% | 14<br>82.4%<br>100.0% | 3<br>17.6%<br>100.0% | 0<br>0.0%<br>***.*% | 17<br>100.0%<br>100.0% |

Table C-7

PLANS FOR FURTHER STUDIES OF CHEMISTS UNEMPLOYED AND NOT SEEKING EMPLOYMENT by Sex and Degree
1980 Starting Salary Survey

| ADVANCED STUDIES | SEX | Bachelors | | TOTAL | Masters | | | | Doctorate | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Men | Women | No Response | | Men | Women | No Response | | Men | Women | No Response | |
| Full-time | 304<br>77.2%<br>92.1% | 90<br>22.8%<br>89.1% | 0<br>0.0%<br>***.*% | 394<br>100.0%<br>91.4% | 11<br>100.0%<br>100.0% | 0<br>0.0%<br>***.*% | 0<br>0.0%<br>***.*% | 11<br>100.0%<br>100.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>***.*% | 0 -Count<br>***.*% -% of Row<br>0.0% -% of Col |
| Part-time | 10<br>71.4%<br>3.0% | 4<br>28.6%<br>4.0% | 0<br>0.0%<br>***.*% | 14<br>100.0%<br>3.2% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% |
| No Plan | 14<br>70.0%<br>4.2% | 6<br>30.0%<br>5.9% | 0<br>0.0%<br>***.*% | 20<br>100.0%<br>4.6% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% | 1<br>100.0%<br>100.0% | 0<br>0.0%<br>***.*% | 0<br>0.0%<br>***.*% | 1<br>100.0%<br>100.0% |
| No Response | 2<br>66.7%<br>0.6% | 1<br>33.3%<br>1.0% | 0<br>0.0%<br>***.*% | 3<br>100.0%<br>0.7% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% |
| TOTAL | 330<br>76.6%<br>100.0% | 101<br>23.4%<br>100.0% | 0<br>0.0%<br>***.*% | 431<br>100.0%<br>100.0% | 11<br>100.0%<br>100.0% | 0<br>0.0%<br>***.*% | 0<br>0.0%<br>***.*% | 11<br>100.0%<br>100.0% | 1<br>100.0%<br>100.0% | 0<br>0.0%<br>***.*% | 0<br>0.0%<br>***.*% | 1<br>100.0%<br>100.0% |

Table C-8

PLANS FOR FURTHER STUDIES OF CHEMICAL ENGINEERS UNEMPLOYED AND NOT SEEKING EMPLOYMENT by Sex and Degree
1980 Starting Salary Survey

| | SEX | Bachelors | | | Masters | | | | Doctorate | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ADVANCED STUDIES | Men | Women | No Response | TOTAL | Men | Women | No Response | | Men | Women | No Response | |
| Full-time | 27<br>93.1%<br>90.0% | 2<br>6.9%<br>50.0% | 0<br>0.0%<br>***.*% | 29<br>100.0%<br>85.3% | 1<br>50.0%<br>100.0% | 1<br>50.0%<br>100.0% | 0<br>0.0%<br>***.*% | 2<br>100.0%<br>100.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>***.*% | 0 -Count<br>***.*% -% of Row<br>0.0% -% of Col |
| Part-time | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% |
| No Plan | 3<br>60.0%<br>10.0% | 2<br>40.0%<br>50.0% | 0<br>0.0%<br>***.*% | 5<br>100.0%<br>14.7% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% | 1<br>100.0%<br>100.0% | 0<br>0.0%<br>***.*% | 0<br>0.0%<br>***.*% | 1<br>100.0%<br>100.0% |
| No Response | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% |
| TOTAL | 30<br>88.2%<br>100.0% | 4<br>11.8%<br>100.0% | 0<br>0.0%<br>***.*% | 34<br>100.0%<br>100.0% | 1<br>50.0%<br>100.0% | 1<br>50.0%<br>100.0% | 0<br>0.0%<br>***.*% | 2<br>100.0%<br>100.0% | 1<br>100.0%<br>100.0% | 0<br>0.0%<br>***.*% | 0<br>0.0%<br>***.*% | 1<br>100.0%<br>100.0% |

Table D-1

AGE DISTRIBUTION of B.S.CHEMISTS and CHEMICAL ENGINEERS by Sex
1980 Starting Salary Survey

| AGE LEVEL | Chemists SEX Men | Women | No Response | TOTAL | Chemical Engineers Men | Women | No Response | TOTAL |
|---|---|---|---|---|---|---|---|---|
| 19 | 2<br>100.0%<br>0.2% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>0.0% | 2<br>100.0%<br>0.1% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0 -Count<br>***.*% -% of Row<br>0.0% -% of Col |
| 20 | 22<br>64.7%<br>1.9% | 12<br>35.3%<br>2.5% | 0<br>0.0%<br>0.0% | 34<br>100.0%<br>2.1% | 3<br>50.0%<br>0.5% | 3<br>50.0%<br>1.7% | 0<br>0.0%<br>0.0% | 6<br>100.0%<br>0.7% |
| 21 | 225<br>65.0%<br>19.8% | 121<br>35.0%<br>24.7% | 0<br>0.0%<br>0.0% | 346<br>100.0%<br>21.3% | 106<br>74.1%<br>16.4% | 37<br>25.9%<br>20.8% | 0<br>0.0%<br>0.0% | 143<br>100.0%<br>17.4% |
| 22 | 594<br>69.2%<br>52.3% | 264<br>30.8%<br>54.0% | 0<br>0.0%<br>0.0% | 858<br>100.0%<br>52.8% | 330<br>77.1%<br>51.2% | 97<br>22.7%<br>54.5% | 1<br>0.2%<br>100.0% | 428<br>100.0%<br>51.9% |
| 23 | 127<br>75.6%<br>11.2% | 41<br>24.4%<br>8.4% | 0<br>0.0%<br>0.0% | 168<br>100.0%<br>10.3% | 135<br>84.9%<br>20.9% | 24<br>15.1%<br>13.5% | 0<br>0.0%<br>0.0% | 159<br>100.0%<br>19.3% |
| 24 | 46<br>83.6%<br>4.1% | 8<br>14.5%<br>1.6% | 1<br>1.8%<br>50.0% | 55<br>100.0%<br>3.4% | 34<br>85.0%<br>5.3% | 6<br>15.0%<br>3.4% | 0<br>0.0%<br>0.0% | 40<br>100.0%<br>4.9% |
| 25 | 33<br>78.6%<br>2.9% | 9<br>21.4%<br>1.8% | 0<br>0.0%<br>0.0% | 42<br>100.0%<br>2.6% | 14<br>87.5%<br>2.2% | 2<br>12.5%<br>1.1% | 0<br>0.0%<br>0.0% | 16<br>100.0%<br>1.9% |
| 26 | 15<br>75.0%<br>1.3% | 5<br>25.0%<br>1.0% | 0<br>0.0%<br>0.0% | 20<br>100.0%<br>1.2% | 6<br>75.0%<br>0.9% | 2<br>25.0%<br>1.1% | 0<br>0.0%<br>0.0% | 8<br>100.0%<br>1.0% |
| 27 | 19<br>76.0%<br>1.7% | 6<br>24.0%<br>1.2% | 0<br>0.0%<br>0.0% | 25<br>100.0%<br>1.5% | 6<br>100.0%<br>0.9% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>0.0% | 6<br>100.0%<br>0.7% |
| 28 | 7<br>63.6%<br>0.6% | 4<br>36.4%<br>0.8% | 0<br>0.0%<br>0.0% | 11<br>100.0%<br>0.7% | 2<br>66.7%<br>0.3% | 1<br>33.3%<br>0.6% | 0<br>0.0%<br>0.0% | 3<br>100.0%<br>0.4% |
| 29 | 12<br>75.0%<br>1.1% | 4<br>25.0%<br>0.8% | 0<br>0.0%<br>0.0% | 16<br>100.0%<br>1.0% | 2<br>50.0%<br>0.3% | 2<br>50.0%<br>1.1% | 0<br>0.0%<br>0.0% | 4<br>100.0%<br>0.5% |
| 30-34 | 20<br>71.4%<br>1.8% | 8<br>28.6%<br>1.6% | 0<br>0.0%<br>0.0% | 28<br>100.0%<br>1.7% | 3<br>75.0%<br>0.5% | 1<br>25.0%<br>0.6% | 0<br>0.0%<br>0.0% | 4<br>100.0%<br>0.5% |
| 35-39 | 8<br>66.7%<br>0.7% | 4<br>33.3%<br>0.8% | 0<br>0.0%<br>0.0% | 12<br>100.0%<br>0.7% | 2<br>66.7%<br>0.3% | 1<br>33.3%<br>0.6% | 0<br>0.0%<br>0.0% | 3<br>100.0%<br>0.4% |
| 40-49 | 1<br>33.3%<br>0.1% | 2<br>66.7%<br>0.4% | 0<br>0.0%<br>0.0% | 3<br>100.0%<br>0.2% | 0<br>0.0%<br>0.0% | 2<br>100.0%<br>1.1% | 0<br>0.0%<br>0.0% | 2<br>100.0%<br>0.2% |
| 50-64 | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% |
| No response | 4<br>66.7%<br>0.4% | 1<br>16.7%<br>0.2% | 1<br>16.7%<br>50.0% | 6<br>100.0%<br>0.4% | 2<br>100.0%<br>0.3% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>0.0% | 2<br>100.0%<br>0.2% |
| TOTAL | 1,135<br>69.8%<br>100.0% | 489<br>30.1%<br>100.0% | 2<br>0.1%<br>100.0% | 1,626<br>100.0%<br>100.0% | 645<br>78.3%<br>100.0% | 178<br>21.6%<br>100.0% | 1<br>0.1%<br>100.0% | 824<br>100.0%<br>100.0% |



Table D-2

AGE DISTRIBUTION of M.S. CHEMISTS and CHEMICAL ENGINEERS by Sex
1980 Starting Salary Survey

| AGE LEVEL | Chemists SEX Men | Women | No Response | TOTAL | Chemical Engineers Men | Women | No Response | TOTAL |
|---|---|---|---|---|---|---|---|---|
| 19 | 1<br>100.0%<br>0.7% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 1<br>100.0%<br>0.6% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0 -Count<br>***.*% -% of Row<br>0.0% -% of Col |
| 20 | 2<br>100.0%<br>1.5% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 2<br>100.0%<br>1.1% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% |
| 21 | 2<br>100.0%<br>1.5% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 2<br>100.0%<br>1.1% | 1<br>100.0%<br>1.3% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 1<br>100.0%<br>1.1% |
| 22 | 3<br>100.0%<br>2.2% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 3<br>100.0%<br>1.7% | 4<br>80.0%<br>5.2% | 1<br>20.0%<br>5.9% | 0<br>0.0%<br>***.*% | 5<br>100.0%<br>5.3% |
| 23 | 14<br>73.7%<br>10.2% | 5<br>26.3%<br>13.5% | 0<br>0.0%<br>***.*% | 19<br>100.0%<br>10.9% | 10<br>76.9%<br>13.0% | 3<br>23.1%<br>17.6% | 0<br>0.0%<br>***.*% | 13<br>100.0%<br>13.8% |
| 24 | 23<br>74.2%<br>16.8% | 8<br>25.8%<br>21.6% | 0<br>0.0%<br>***.*% | 31<br>100.0%<br>17.8% | 16<br>80.0%<br>20.8% | 4<br>20.0%<br>23.5% | 0<br>0.0%<br>***.*% | 20<br>100.0%<br>21.3% |
| 25 | 27<br>79.4%<br>19.7% | 7<br>20.6%<br>18.9% | 0<br>0.0%<br>***.*% | 34<br>100.0%<br>19.5% | 13<br>72.2%<br>16.9% | 5<br>27.8%<br>29.4% | 0<br>0.0%<br>***.*% | 18<br>100.0%<br>19.1% |
| 26 | 15<br>71.4%<br>10.9% | 6<br>28.6%<br>16.2% | 0<br>0.0%<br>***.*% | 21<br>100.0%<br>12.1% | 8<br>88.9%<br>10.4% | 1<br>11.1%<br>5.9% | 0<br>0.0%<br>***.*% | 9<br>100.0%<br>9.6% |
| 27 | 14<br>82.4%<br>10.2% | 3<br>17.6%<br>8.1% | 0<br>0.0%<br>***.*% | 17<br>100.0%<br>9.8% | 13<br>81.3%<br>16.9% | 3<br>18.8%<br>17.6% | 0<br>0.0%<br>***.*% | 16<br>100.0%<br>17.0% |
| 28 | 6<br>85.7%<br>4.4% | 1<br>14.3%<br>2.7% | 0<br>0.0%<br>***.*% | 7<br>100.0%<br>4.0% | 5<br>100.0%<br>6.5% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 5<br>100.0%<br>5.3% |
| 29 | 9<br>81.8%<br>6.6% | 2<br>18.2%<br>5.4% | 0<br>0.0%<br>***.*% | 11<br>100.0%<br>6.3% | 4<br>100.0%<br>5.2% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 4<br>100.0%<br>4.3% |
| 30-34 | 16<br>88.9%<br>11.7% | 2<br>11.1%<br>5.4% | 0<br>0.0%<br>***.*% | 18<br>100.0%<br>10.3% | 3<br>100.0%<br>3.9% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 3<br>100.0%<br>3.2% |
| 35-39 | 4<br>80.0%<br>2.9% | 1<br>20.0%<br>2.7% | 0<br>0.0%<br>***.*% | 5<br>100.0%<br>2.9% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% |
| 40-49 | 0<br>0.0%<br>0.0% | 2<br>100.0%<br>5.4% | 0<br>0.0%<br>***.*% | 2<br>100.0%<br>1.1% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% |
| 50-64 | 1<br>100.0%<br>0.7% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 1<br>100.0%<br>0.6% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% |
| No response | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% |
| TOTAL | 137<br>78.7%<br>100.0% | 37<br>21.3%<br>100.0% | 0<br>0.0%<br>***.*% | 174<br>100.0%<br>100.0% | 77<br>81.9%<br>100.0% | 17<br>18.1%<br>100.0% | 0<br>0.0%<br>***.*% | 94<br>100.0%<br>100.0% |

Table D-3

AGE DISTRIBUTION of Ph.D. CHEMISTS and CHEMICAL ENGINEERS by Sex
1980 Starting Salary Survey

| AGE LEVEL | SEX Chemists: Men | Women | No Response | TOTAL | Chemical Engineers: Men | Women | No Response | TOTAL |
|---|---|---|---|---|---|---|---|---|
| 19 | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0 -Count<br>***.*% -% of Row<br>0.0% -% of Col |
| 20 | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% |
| 21 | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% |
| 22 | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% |
| 23 | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% |
| 24 | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% |
| 25 | 6<br>100.0%<br>3.6% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 6<br>100.0%<br>3.0% | 3<br>100.0%<br>7.9% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 3<br>100.0%<br>7.5% |
| 26 | 17<br>68.0%<br>10.3% | 8<br>32.0%<br>24.2% | 0<br>0.0%<br>***.*% | 25<br>100.0%<br>12.6% | 3<br>100.0%<br>7.9% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 3<br>100.0%<br>7.5% |
| 27 | 47<br>81.0%<br>28.5% | 11<br>19.0%<br>33.3% | 0<br>0.0%<br>***.*% | 58<br>100.0%<br>29.3% | 12<br>92.3%<br>31.6% | 1<br>7.7%<br>50.0% | 0<br>0.0%<br>***.*% | 13<br>100.0%<br>32.5% |
| 28 | 27<br>84.4%<br>16.4% | 5<br>15.6%<br>15.2% | 0<br>0.0%<br>***.*% | 32<br>100.0%<br>16.2% | 5<br>83.3%<br>13.2% | 1<br>16.7%<br>50.0% | 0<br>0.0%<br>***.*% | 6<br>100.0%<br>15.0% |
| 29 | 17<br>85.0%<br>10.3% | 3<br>15.0%<br>9.1% | 0<br>0.0%<br>***.*% | 20<br>100.0%<br>10.1% | 7<br>100.0%<br>18.4% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 7<br>100.0%<br>17.5% |
| 30-34 | 40<br>90.9%<br>24.2% | 4<br>9.1%<br>12.1% | 0<br>0.0%<br>***.*% | 44<br>100.0%<br>22.2% | 7<br>100.0%<br>18.4% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 7<br>100.0%<br>17.5% |
| 35-39 | 6<br>85.7%<br>3.6% | 1<br>14.3%<br>3.0% | 0<br>0.0%<br>***.*% | 7<br>100.0%<br>3.5% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% |
| 40-49 | 3<br>75.0%<br>1.8% | 1<br>25.0%<br>3.0% | 0<br>0.0%<br>***.*% | 4<br>100.0%<br>2.0% | 1<br>100.0%<br>2.6% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 1<br>100.0%<br>2.5% |
| 50-64 | 2<br>100.0%<br>1.2% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 2<br>100.0%<br>1.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% |
| No response | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% |
| TOTAL | 165<br>83.3%<br>100.0% | 33<br>16.7%<br>100.0% | 0<br>0.0%<br>***.*% | 198<br>100.0%<br>100.0% | 38<br>95.0%<br>100.0% | 2<br>5.0%<br>100.0% | 0<br>0.0%<br>***.*% | 40<br>100.0%<br>100.0% |



Table D-4

AGE DISTRIBUTION of POSTDOCTORAL CHEMISTS by Sex
1980 Starting Salary Survey

| AGE LEVEL | SEX Men | Women | No Response | TOTAL |
|---|---|---|---|---|
| 25 | 4<br>100.0%<br>9.1% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 4<br>100.0%<br>6.9% |
| 26 | 3<br>42.9%<br>6.8% | 4<br>57.1%<br>28.6% | 0<br>0.0%<br>***.*% | 7<br>100.0%<br>12.1% |
| 27 | 15<br>75.0%<br>34.1% | 5<br>25.0%<br>35.7% | 0<br>0.0%<br>***.*% | 20<br>100.0%<br>34.5% |
| 28 | 4<br>57.1%<br>9.1% | 3<br>42.9%<br>21.4% | 0<br>0.0%<br>***.*% | 7<br>100.0%<br>12.1% |
| 29 | 5<br>83.3%<br>11.4% | 1<br>16.7%<br>7.1% | 0<br>0.0%<br>***.*% | 6<br>100.0%<br>10.3% |
| 30-34 | 11<br>91.7%<br>25.0% | 1<br>8.3%<br>7.1% | 0<br>0.0%<br>***.*% | 12<br>100.0%<br>20.7% |
| 35-39 | 2<br>100.0%<br>4.5% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 2<br>100.0%<br>3.4% |
| 40-49 | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% |
| 50-64 | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% |
| No response | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% |
| TOTAL | 44<br>75.9%<br>100.0% | 14<br>24.1%<br>100.0% | 0<br>0.0%<br>***.*% | 58<br>100.0%<br>100.0% |

Table E-1

NUMBER of FIRM JOB OFFERS TO FULL-TIME EMPLOYED INEXPERIENCED CHEMISTS by Sex and Degree
1980 Starting Salary Survey

| NUMBER OF OFFERS | Bachelors SEX Men | Bachelors SEX Women | Bachelors No Response | Bachelors TOTAL | Masters Men | Masters Women | Masters No Response | Masters TOTAL | Doctorate Men | Doctorate Women | Doctorate No Response | Doctorate TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 32<br>62.7%<br>14.2% | 18<br>35.3%<br>10.8% | 1<br>2.0%<br>100.0% | 51<br>100.0%<br>13.0% | 1<br>100.0%<br>3.2% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 1<br>100.0%<br>2.4% | 1<br>50.0%<br>1.2% | 1<br>50.0%<br>7.1% | 0<br>0.0%<br>***.*% | 2 -Count<br>100.0% -% of Row<br>2.1% -% of Col |
| 1 | 69<br>57.0%<br>30.5% | 52<br>43.0%<br>31.3% | 0<br>0.0%<br>0.0% | 121<br>100.0%<br>30.8% | 10<br>83.3%<br>32.3% | 2<br>16.7%<br>18.2% | 0<br>0.0%<br>***.*% | 12<br>100.0%<br>28.6% | 20<br>100.0%<br>24.7% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 20<br>100.0%<br>21.1% |
| 2 | 50<br>56.8%<br>22.1% | 38<br>43.2%<br>22.9% | 0<br>0.0%<br>0.0% | 88<br>100.0%<br>22.4% | 7<br>87.5%<br>22.6% | 1<br>12.5%<br>9.1% | 0<br>0.0%<br>***.*% | 8<br>100.0%<br>19.0% | 16<br>80.0%<br>19.8% | 4<br>20.0%<br>28.6% | 0<br>0.0%<br>***.*% | 20<br>100.0%<br>21.1% |
| 3 | 29<br>58.0%<br>12.8% | 21<br>42.0%<br>12.7% | 0<br>0.0%<br>0.0% | 50<br>100.0%<br>12.7% | 3<br>42.9%<br>9.7% | 4<br>57.1%<br>36.4% | 0<br>0.0%<br>***.*% | 7<br>100.0%<br>16.7% | 8<br>80.0%<br>9.9% | 2<br>20.0%<br>14.3% | 0<br>0.0%<br>***.*% | 10<br>100.0%<br>10.5% |
| 4 | 8<br>50.0%<br>3.5% | 8<br>50.0%<br>4.8% | 0<br>0.0%<br>0.0% | 16<br>100.0%<br>4.1% | 2<br>66.7%<br>6.5% | 1<br>33.3%<br>9.1% | 0<br>0.0%<br>***.*% | 3<br>100.0%<br>7.1% | 13<br>92.9%<br>16.0% | 1<br>7.1%<br>7.1% | 0<br>0.0%<br>***.*% | 14<br>100.0%<br>14.7% |
| 5 | 7<br>53.8%<br>3.1% | 6<br>46.2%<br>3.6% | 0<br>0.0%<br>0.0% | 13<br>100.0%<br>3.3% | 1<br>100.0%<br>3.2% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 1<br>100.0%<br>2.4% | 5<br>71.4%<br>6.2% | 2<br>28.6%<br>14.3% | 0<br>0.0%<br>***.*% | 7<br>100.0%<br>7.4% |
| 6-7 | 2<br>66.7%<br>0.9% | 1<br>33.3%<br>0.6% | 0<br>0.0%<br>0.0% | 3<br>100.0%<br>0.8% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% | 3<br>75.0%<br>3.7% | 1<br>25.0%<br>7.1% | 0<br>0.0%<br>***.*% | 4<br>100.0%<br>4.2% |
| 8-9 | 0<br>0.0%<br>0.0% | 3<br>100.0%<br>1.8% | 0<br>0.0%<br>0.0% | 3<br>100.0%<br>0.8% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% |
| 10 Or More | 2<br>66.7%<br>0.9% | 1<br>33.3%<br>0.6% | 0<br>0.0%<br>0.0% | 3<br>100.0%<br>0.8% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% | 1<br>100.0%<br>1.2% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 1<br>100.0%<br>1.1% |
| No Response | 27<br>60.0%<br>11.9% | 18<br>40.0%<br>10.8% | 0<br>0.0%<br>0.0% | 45<br>100.0%<br>11.5% | 7<br>70.0%<br>22.6% | 3<br>30.0%<br>27.3% | 0<br>0.0%<br>***.*% | 10<br>100.0%<br>23.8% | 14<br>82.4%<br>17.3% | 3<br>17.6%<br>21.4% | 0<br>0.0%<br>***.*% | 17<br>100.0%<br>17.9% |
| TOTAL | 226<br>57.5%<br>100.0% | 166<br>42.2%<br>100.0% | 1<br>0.3%<br>100.0% | 393<br>100.0%<br>100.0% | 31<br>73.8%<br>100.0% | 11<br>26.2%<br>100.0% | 0<br>0.0%<br>***.*% | 42<br>100.0%<br>100.0% | 81<br>85.3%<br>100.0% | 14<br>14.7%<br>100.0% | 0<br>0.0%<br>***.*% | 95<br>100.0%<br>100.0% |

Table E-2

NUMBER of FIRM JOB OFFERS TO FULL-TIME EMPLOYED EXPERIENCED CHEMISTS by Sex and Degree
1980 Starting Salary Survey

| NUMBER OF OFFERS | Bachelors SEX | | | | Masters | | | | Doctorate | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Men | Women | No Response | TOTAL | Men | Women | No Response | TOTAL | Men | Women | No Response | TOTAL |
| 0 | 5<br>71.4%<br>6.1% | 2<br>28.6%<br>4.1% | 0<br>0.0%<br>***.*% | 7<br>100.0%<br>5.3% | 0<br>0.0%<br>0.0% | 3<br>100.0%<br>25.0% | 0<br>0.0%<br>***.*% | 3<br>100.0%<br>7.7% | 2<br>100.0%<br>7.1% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 2 -Count<br>100.0% -% of Row<br>6.5% -% of Col |
| 1 | 13<br>54.2%<br>15.9% | 11<br>45.8%<br>22.4% | 0<br>0.0%<br>***.*% | 24<br>100.0%<br>18.3% | 5<br>100.0%<br>18.5% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 5<br>100.0%<br>12.8% | 6<br>100.0%<br>21.4% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 6<br>100.0%<br>19.4% |
| 2 | 11<br>55.0%<br>13.4% | 9<br>45.0%<br>18.4% | 0<br>0.0%<br>***.*% | 20<br>100.0%<br>15.3% | 3<br>75.0%<br>11.1% | 1<br>25.0%<br>8.3% | 0<br>0.0%<br>***.*% | 4<br>100.0%<br>10.3% | 6<br>85.7%<br>21.4% | 1<br>14.3%<br>33.3% | 0<br>0.0%<br>***.*% | 7<br>100.0%<br>22.6% |
| 3 | 5<br>62.5%<br>6.1% | 3<br>37.5%<br>6.1% | 0<br>0.0%<br>***.*% | 8<br>100.0%<br>6.1% | 3<br>75.0%<br>11.1% | 1<br>25.0%<br>8.3% | 0<br>0.0%<br>***.*% | 4<br>100.0%<br>10.3% | 1<br>50.0%<br>3.6% | 1<br>50.0%<br>33.3% | 0<br>0.0%<br>***.*% | 2<br>100.0%<br>6.5% |
| 4 | 3<br>60.0%<br>3.7% | 2<br>40.0%<br>4.1% | 0<br>0.0%<br>***.*% | 5<br>100.0%<br>3.8% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% | 1<br>100.0%<br>3.6% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 1<br>100.0%<br>3.2% |
| 5 | 3<br>75.0%<br>3.7% | 1<br>25.0%<br>2.0% | 0<br>0.0%<br>***.*% | 4<br>100.0%<br>3.1% | 1<br>100.0%<br>3.7% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 1<br>100.0%<br>2.6% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% |
| 6-7 | 1<br>100.0%<br>1.2% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 1<br>100.0%<br>0.8% | 0<br>0.0%<br>0.0% | 1<br>100.0%<br>8.3% | 0<br>0.0%<br>***.*% | 1<br>100.0%<br>2.6% | 1<br>100.0%<br>3.6% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 1<br>100.0%<br>3.2% |
| 8-9 | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% | 1<br>100.0%<br>3.6% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 1<br>100.0%<br>3.2% |
| 10 Or More | 0<br>0.0%<br>0.0% | 1<br>100.0%<br>2.0% | 0<br>0.0%<br>***.*% | 1<br>100.0%<br>0.8% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% |
| No Response | 41<br>67.2%<br>50.0% | 20<br>32.8%<br>40.8% | 0<br>0.0%<br>***.*% | 61<br>100.0%<br>46.6% | 15<br>71.4%<br>55.6% | 6<br>28.6%<br>50.0% | 0<br>0.0%<br>***.*% | 21<br>100.0%<br>53.8% | 10<br>90.9%<br>35.7% | 1<br>9.1%<br>33.3% | 0<br>0.0%<br>***.*% | 11<br>100.0%<br>35.5% |
| TOTAL | 82<br>62.6%<br>100.0% | 49<br>37.4%<br>100.0% | 0<br>0.0%<br>***.*% | 131<br>100.0%<br>100.0% | 27<br>69.2%<br>100.0% | 12<br>30.8%<br>100.0% | 0<br>0.0%<br>***.*% | 39<br>100.0%<br>100.0% | 28<br>90.3%<br>100.0% | 3<br>9.7%<br>100.0% | 0<br>0.0%<br>***.*% | 31<br>100.0%<br>100.0% |

Table E-3

NUMBER of FIRM JOB OFFERS TO FULL-TIME EMPLOYED EXPERIENCED CHEMICAL ENGINEERS by Sex and Degree
1980 Starting Salary Survey

| NUMBER OF OFFERS | Bachelors SEX Men | Bachelors SEX Women | Bachelors No Response | Bachelors TOTAL | Masters Men | Masters Women | Masters No Response | Masters TOTAL | Doctorate Men | Doctorate Women | Doctorate No Response | Doctorate TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 0<br>0.0%<br>0.0% | 1<br>100.0%<br>3.3% | 0<br>0.0%<br>0.0% | 1<br>100.0%<br>0.9% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>***.*% | 0 -Count<br>***.*% -% of Row<br>0.0% -% of Col |
| 1 | 8<br>80.0%<br>10.5% | 2<br>20.0%<br>6.7% | 0<br>0.0%<br>0.0% | 10<br>100.0%<br>9.3% | 2<br>100.0%<br>8.7% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 2<br>100.0%<br>6.7% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% |
| 2 | 5<br>71.4%<br>6.6% | 2<br>28.6%<br>6.7% | 0<br>0.0%<br>0.0% | 7<br>100.0%<br>6.5% | 2<br>100.0%<br>8.7% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 2<br>100.0%<br>6.7% | 2<br>100.0%<br>18.2% | 0<br>0.0%<br>***.*% | 0<br>0.0%<br>***.*% | 2<br>100.0%<br>18.2% |
| 3 | 11<br>64.7%<br>14.5% | 6<br>35.3%<br>20.0% | 0<br>0.0%<br>0.0% | 17<br>100.0%<br>15.9% | 0<br>0.0%<br>0.0% | 2<br>100.0%<br>28.6% | 0<br>0.0%<br>***.*% | 2<br>100.0%<br>6.7% | 2<br>100.0%<br>18.2% | 0<br>0.0%<br>***.*% | 0<br>0.0%<br>***.*% | 2<br>100.0%<br>18.2% |
| 4 | 12<br>70.6%<br>15.8% | 5<br>29.4%<br>16.7% | 0<br>0.0%<br>0.0% | 17<br>100.0%<br>15.9% | 2<br>100.0%<br>8.7% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 2<br>100.0%<br>6.7% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% |
| 5 | 7<br>58.3%<br>9.2% | 4<br>33.3%<br>13.3% | 1<br>8.3%<br>100.0% | 12<br>100.0%<br>11.2% | 2<br>66.7%<br>8.7% | 1<br>33.3%<br>14.3% | 0<br>0.0%<br>***.*% | 3<br>100.0%<br>10.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% |
| 6-7 | 11<br>73.3%<br>14.5% | 4<br>26.7%<br>13.3% | 0<br>0.0%<br>0.0% | 15<br>100.0%<br>14.0% | 1<br>50.0%<br>4.3% | 1<br>50.0%<br>14.3% | 0<br>0.0%<br>***.*% | 2<br>100.0%<br>6.7% | 1<br>100.0%<br>9.1% | 0<br>0.0%<br>***.*% | 0<br>0.0%<br>***.*% | 1<br>100.0%<br>9.1% |
| 8-9 | 6<br>100.0%<br>7.9% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>0.0% | 6<br>100.0%<br>5.6% | 1<br>100.0%<br>4.3% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 1<br>100.0%<br>3.3% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% |
| 10 Or More | 6<br>100.0%<br>7.9% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>0.0% | 6<br>100.0%<br>5.6% | 2<br>50.0%<br>8.7% | 2<br>50.0%<br>28.6% | 0<br>0.0%<br>***.*% | 4<br>100.0%<br>13.3% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% |
| No Response | 10<br>62.5%<br>13.2% | 6<br>37.5%<br>20.0% | 0<br>0.0%<br>0.0% | 16<br>100.0%<br>15.0% | 11<br>91.7%<br>47.8% | 1<br>8.3%<br>14.3% | 0<br>0.0%<br>***.*% | 12<br>100.0%<br>40.0% | 6<br>100.0%<br>54.5% | 0<br>0.0%<br>***.*% | 0<br>0.0%<br>***.*% | 6<br>100.0%<br>54.5% |
| TOTAL | 76<br>71.0%<br>100.0% | 30<br>28.0%<br>100.0% | 1<br>0.9%<br>100.0% | 107<br>100.0%<br>100.0% | 23<br>76.7%<br>100.0% | 7<br>23.3%<br>100.0% | 0<br>0.0%<br>***.*% | 30<br>100.0%<br>100.0% | 11<br>100.0%<br>100.0% | 0<br>0.0%<br>***.*% | 0<br>0.0%<br>***.*% | 11<br>100.0%<br>100.0% |

Table E-4

NUMBER of FIRM JOB OFFERS TO FULL-TIME EMPLOYED INEXPERIENCED CHEMICAL ENGINEERS by Sex and Degree
1980 Starting Salary Survey

| NUMBER OF OFFERS | Bachelors SEX Men | Women | No Response | TOTAL | Masters Men | Women | No Response | TOTAL | Doctorate Men | Women | No Response | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 10<br>100.0%<br>2.4% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 10<br>100.0%<br>1.9% | 1<br>100.0%<br>2.6% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 1<br>100.0%<br>2.2% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0 -Count<br>***.*% -% of Row<br>0.0% -% of Col |
| 1 | 62<br>83.8%<br>14.8% | 12<br>16.2%<br>10.3% | 0<br>0.0%<br>***.*% | 74<br>100.0%<br>13.8% | 5<br>71.4%<br>13.2% | 2<br>28.6%<br>28.6% | 0<br>0.0%<br>***.*% | 7<br>100.0%<br>15.6% | 4<br>100.0%<br>16.7% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 4<br>100.0%<br>16.0% |
| 2 | 76<br>82.6%<br>18.1% | 16<br>17.4%<br>13.8% | 0<br>0.0%<br>***.*% | 92<br>100.0%<br>17.2% | 3<br>100.0%<br>7.9% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 3<br>100.0%<br>6.7% | 4<br>100.0%<br>16.7% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 4<br>100.0%<br>16.0% |
| 3 | 77<br>73.3%<br>18.3% | 28<br>26.7%<br>24.1% | 0<br>0.0%<br>***.*% | 105<br>100.0%<br>19.6% | 4<br>80.0%<br>10.5% | 1<br>20.0%<br>14.3% | 0<br>0.0%<br>***.*% | 5<br>100.0%<br>11.1% | 4<br>100.0%<br>16.7% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 4<br>100.0%<br>16.0% |
| 4 | 57<br>86.4%<br>13.6% | 9<br>13.6%<br>7.8% | 0<br>0.0%<br>***.*% | 66<br>100.0%<br>12.3% | 4<br>100.0%<br>10.5% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 4<br>100.0%<br>8.9% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% |
| 5 | 40<br>80.0%<br>9.5% | 10<br>20.0%<br>8.6% | 0<br>0.0%<br>***.*% | 50<br>100.0%<br>9.3% | 3<br>100.0%<br>7.9% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 3<br>100.0%<br>6.7% | 3<br>100.0%<br>12.5% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 3<br>100.0%<br>12.0% |
| 6-7 | 37<br>72.5%<br>8.8% | 14<br>27.5%<br>12.1% | 0<br>0.0%<br>***.*% | | 4<br>80.0%<br>10.5% | 1<br>20.0%<br>14.3% | 0<br>0.0%<br>***.*% | 5<br>100.0%<br>11.1% | 2<br>100.0%<br>8.3% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 2<br>100.0%<br>8.0% |
| 8-9 | 19<br>65.5%<br>4.5% | 10<br>34.5%<br>8.6% | 0<br>0.0%<br>***.*% | 29<br>100.0<br>5.4% | 0<br>0.0%<br>0.0% | 1<br>100.0%<br>14.3% | 0<br>0.0%<br>***.*% | 1<br>100.0%<br>2.2% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% |
| 10 Or More | 19<br>59.4%<br>4.5% | 13<br>40.6%<br>11.2% | 0<br>0.0%<br>***.*% | 32<br>100.0%<br>6.0% | 4<br>100.0%<br>10.5% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 4<br>100.0%<br>8.9% | 4<br>100.0%<br>16.7% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 4<br>100.0%<br>16.0% |
| No Response | 23<br>85.2%<br>5.5% | 4<br>14.8%<br>3.4% | 0<br>0.0%<br>***.*% | 27<br>100.0%<br>5.0% | 10<br>83.3%<br>26.3% | 2<br>16.7%<br>28.6% | 0<br>0.0%<br>***.*% | 12<br>100.0%<br>26.7% | 3<br>75.0%<br>12.5% | 1<br>25.0%<br>100.0% | 0<br>0.0%<br>***.*% | 4<br>100.0%<br>16.0% |
| TOTAL | 420<br>78.4%<br>100.0% | 116<br>21.6%<br>100.0% | 0<br>0.0%<br>***.*% | 536<br>100.0%<br>100.0% | 38<br>84.4%<br>100.0% | 7<br>15.6%<br>100.0% | 0<br>0.0%<br>***.*% | 45<br>100.0%<br>100.0% | 24<br>96.0%<br>100.0% | 1<br>4.0%<br>100.0% | 0<br>0.0%<br>***.*% | 25<br>100.0%<br>100.0% |

Table F-1

MINORITY CLASSIFICATION and CITIZENSHIP or VISA STATUS of CHEMISTS by Degree
1980 Starting Salary Survey

Bachelor

| CITIZENSHIP | MINORITY STATUS: Black | American Indian | Asian | Hispanic | White | No Response | TOTAL |
|---|---|---|---|---|---|---|---|
| US Citizen | 31<br>2.0%<br>83.8% | 5<br>0.3%<br>100.0% | 32<br>2.0%<br>55.2% | 24<br>1.5%<br>88.9% | 1,477<br>93.7%<br>99.1% | 7<br>0.4%<br>87.5% | 1,576 -Count<br>100.0% -% of Row<br>96.9% -% of Col |
| Permanent Resident | 2<br>6.3%<br>5.4% | 0<br>0.0%<br>0.0% | 18<br>56.3%<br>31.0% | 2<br>6.3%<br>7.4% | 10<br>31.3%<br>0.7% | 0<br>0.0%<br>0.0% | 32<br>100.0%<br>2.0% |
| Other | 4<br>26.7%<br>10.8% | 0<br>0.0%<br>0.0% | 8<br>53.3%<br>13.8% | 1<br>6.7%<br>3.7% | 2<br>13.3%<br>0.1% | 0<br>0.0%<br>0.0% | 15<br>100.0%<br>0.9% |
| No Response | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>0.0% | 2<br>66.7%<br>0.1% | 1<br>33.3%<br>12.5% | 3<br>100.0%<br>0.2% |
| TOTAL | 37<br>2.3%<br>100.0% | 5<br>0.3%<br>100.0% | 58<br>3.6%<br>100.0% | 27<br>1.7%<br>100.0% | 1,491<br>91.7%<br>100.0% | 8<br>0.5%<br>100.0% | 1,626<br>100.0%<br>100.0% |

Masters

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| US Citizen | 2<br>1.3%<br>33.3% | 1<br>0.6%<br>100.0% | 7<br>4.5%<br>35.0% | 2<br>1.3%<br>100.0% | 141<br>90.4%<br>99.3% | 3<br>1.9%<br>100.0% | 156<br>100.0%<br>89.7% |
| Permanent Resident | 1<br>16.7%<br>16.7% | 0<br>0.0%<br>0.0% | 5<br>83.3%<br>25.0% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>0.0% | 6<br>100.0%<br>3.4% |
| Other | 3<br>25.0%<br>50.0% | 0<br>0.0%<br>0.0% | 8<br>66.7%<br>40.0% | 0<br>0.0%<br>0.0% | 1<br>8.3%<br>0.7% | 0<br>0.0%<br>0.0% | 12<br>100.0%<br>6.9% |
| No Response | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% |
| TOTAL | 6<br>3.4%<br>100.0% | 1<br>0.6%<br>100.0% | 20<br>11.5%<br>100.0% | 2<br>1.1%<br>100.0% | 142<br>81.6%<br>100.0% | 3<br>1.7%<br>100.0% | 174<br>100.0%<br>100.0% |

Doctorate

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| US Citizen | 1<br>0.6%<br>33.3% | 0<br>0.0%<br>***.*% | 5<br>2.8%<br>22.7% | 1<br>0.6%<br>100.0% | 169<br>94.9%<br>99.4% | 2<br>1.1%<br>100.0% | 178<br>100.0%<br>89.9% |
| Permanent Resident | 1<br>11.1%<br>33.3% | 0<br>0.0%<br>***.*% | 7<br>77.8%<br>31.8% | 0<br>0.0%<br>0.0% | 1<br>11.1%<br>0.6% | 0<br>0.0%<br>0.0% | 9<br>100.0%<br>4.5% |
| Other | 1<br>9.1%<br>33.3% | 0<br>0.0%<br>***.*% | 10<br>90.9%<br>45.5% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>0.0% | 11<br>100.0%<br>5.6% |
| No Response | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% |
| TOTAL | 3<br>1.5%<br>100.0% | 0<br>0.0%<br>***.*% | 22<br>11.1%<br>100.0% | 1<br>0.5%<br>100.0% | 170<br>85.9%<br>100.0% | 2<br>1.0%<br>100.0% | 198<br>100.0%<br>100.0% |

Table F-2

MINORITY CLASSIFICATION of CHEMISTS by Degree and Sex
1980 Starting Salary Survey

| MINORITY STATUS | SEX | Bachelors | | | Masters | | | Doctorate | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Men | Women | No Response | Men | Women | No Response | Men | Women | No Response |
| Black | | 24 | 13 | 0 | 6 | 0 | 0 | 3 | 0 | 0 |
| | | 64.9% | 35.1% | 0.0% | 100.0% | 0.0% | 0.0% | 100.0% | 0.0% | 0.0% |
| | | 2.1% | 2.7% | 0.0% | 4.4% | 0.0% | ***.*% | 1.8% | 0.0% | ***.*% |
| American Indian | | 3 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | | 60.0% | 40.0% | 0.0% | 100.0% | 0.0% | 0.0% | ***.*% | ***.*% | ***.*% |
| | | 0.3% | 0.4% | 0.0% | 0.7% | 0.0% | ***.*% | 0.0% | 0.0% | ***.*% |
| Asian | | 31 | 27 | 0 | 17 | 3 | 0 | 16 | 6 | 0 |
| | | 53.4% | 46.6% | 0.0% | 85.0% | 15.0% | 0.0% | 72.7% | 27.3% | 0.0% |
| | | 2.7% | 5.5% | 0.0% | 12.4% | 8.1% | ***.*% | 9.7% | 18.2% | ***.*% |
| Hispanic | | 21 | 6 | 0 | 2 | 0 | 0 | 1 | 0 | 0 |
| | | 77.8% | 22.2% | 0.0% | 100.0% | 0.0% | 0.0% | 100.0% | 0.0% | 0.0% |
| | | 1.9% | 1.2% | 0.0% | 1.5% | 0.0% | ***.*% | 0.6% | 0.0% | ***.*% |
| White | | 1,050 | 441 | 0 | 108 | 34 | 0 | 143 | 27 | 0 |
| | | 70.4% | 29.6% | 0.0% | 76.1% | 23.9% | 0.0% | 84.1% | 15.9% | 0.0% |
| | | 92.5% | 90.2% | 0.0% | 78.8% | 91.9% | ***.*% | 86.7% | 81.8% | ***.*% |
| No Response | | 6 | 0 | 2 | 3 | 0 | 0 | 2 | 0 | 0 |
| | | 75.0% | 0.0% | 25.0% | 100.0% | 0.0% | 0.0% | 100.0% | 0.0% | 0.0% |
| | | 0.5% | 0.0% | 100.0% | 2.2% | 0.0% | ***.*% | 1.2% | 0.0% | ***.*% |
| TOTAL | | 1,135 | 489 | 2 | 137 | 37 | 0 | 165 | 33 | 0 |
| | | 69.8% | 30.1% | 0.1% | 78.7% | 21.3% | 0.0% | 83.3% | 16.7% | 0.0% |
| | | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | ***.*% | 100.0% | 100.0% | ***.*% |

| MINORITY STATUS | TOTAL | TOTAL | TOTAL | |
|---|---|---|---|---|
| Black | 37 | 6 | 3 | -Count |
| | 100.0% | 100.0% | 100.0% | -% of Row |
| | 2.3% | 3.4% | 1.5% | -% of Col |
| American Indian | 5 | 1 | 0 | |
| | 100.0% | 100.0% | ***.*% | |
| | 0.3% | 0.6% | 0.0% | |
| Asian | 58 | 20 | 22 | |
| | 100.0% | 100.0% | 100.0% | |
| | 3.6% | 11.5% | 11.1% | |
| Hispanic | 27 | 2 | 1 | |
| | 100.0% | 100.0% | 100.0% | |
| | 1.7% | 1.1% | 0.5% | |
| White | 1,491 | 142 | 170 | |
| | 100.0% | 100.0% | 100.0% | |
| | 91.7% | 81.6% | 85.9% | |
| No Response | 8 | 3 | 2 | |
| | 100.0% | 100.0% | 100.0% | |
| | 0.5% | 1.7% | 1.0% | |
| TOTAL | 1,626 | 174 | 198 | |
| | 100.0% | 100.0% | 100.0% | |
| | 100.0% | 100.0% | 100.0% | |

Table F-3

CITIZENSHIP of CHEMISTS by Degree and Sex
1980 Starting salary Survey

| CITIZENSHIP | SEX | Bachelors | | | Masters | | | | Doctorate | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Men | Women | No Response | TOTAL | Men | Women | No Response | TOTAL | Men | Women | No Response | TOTAL | |
| US Citizen | 1,110 | 465 | 1 | 1,576 | 121 | 35 | 0 | 156 | 149 | 29 | 0 | 178 | -Count |
| | 70.4% | 29.5% | 0.1% | 100.0% | 77.6% | 22.4% | 0.0% | 100.0% | 83.7% | 16.3% | 0.0% | 100.0% | -% of Row |
| | 97.8% | 95.1% | 50.0% | 96.9% | 88.3% | 94.6% | ***.*% | 89.7% | 90.3% | 87.9% | ***.*% | 89.9% | -% of Col |
| Permanent Resident | 13 | 19 | 0 | 32 | 6 | 0 | 0 | 6 | 7 | 2 | 0 | 9 | |
| | 40.6% | 59.4% | 0.0% | 100.0% | 100.0% | 0.0% | 0.0% | 100.0% | 77.8% | 22.2% | 0.0% | 100.0% | |
| | 1.1% | 3.9% | 0.0% | 2.0% | 4.4% | 0.0% | ***.*% | 3.4% | 4.2% | 6.1% | ***.*% | 4.5% | |
| Other | 10 | 5 | 0 | 15 | 10 | 2 | 0 | 12 | 9 | 2 | 0 | 11 | |
| | 66.7% | 33.3% | 0.0% | 100.0% | 83.3% | 16.7% | 0.0% | 100.0% | 81.8% | 18.2% | 0.0% | 100.0% | |
| | 0.9% | 1.0% | 0.0% | 0.9% | 7.3% | 5.4% | ***.*% | 6.9% | 5.5% | 6.1% | ***.*% | 5.6% | |
| No Response | 2 | 0 | 1 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 66.7% | 0.0% | 33.3% | 100.0% | ***.*% | ***.*% | ***.*% | ***.*% | ***.*% | ***.*% | ***.*% | ***.*% | |
| | 0.2% | 0.0% | 50.0% | 0.2% | 0.0% | 0.0% | ***.*% | 0.0% | 0.0% | 0.0% | ***.*% | 0.0% | |
| TOTAL | 1,135 | 489 | 2 | 1,626 | 137 | 37 | 0 | 174 | 165 | 33 | 0 | 198 | |
| | 69.8% | 30.1% | 0.1% | 100.0% | 78.7% | 21.3% | 0.0% | 100.0% | 83.3% | 16.7% | 0.0% | 100.0% | |
| | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | ***.*% | 100.0% | 100.0% | 100.0% | ***.*% | 100.0% | |

MINORITY CLASSIFICATION and CITIZENSHIP or VISA STATUS of CHEMICAL ENGINEERS by Degree
1980 Starting Salary Survey

MINORITY STATUS — Bachelors

| CITIZENSHIP | Black | American Indian | Asian | Hispanic | White | No Response | TOTAL |
|---|---|---|---|---|---|---|---|
| US Citizen | 12<br>1.5%<br>92.3% | 2<br>0.3%<br>100.0% | 18<br>2.3%<br>69.2% | 9<br>1.1%<br>69.2% | 752<br>94.2%<br>98.3% | 5<br>0.6%<br>100.0% | 798 -Count<br>100.0% -% of Row<br>96.8% -% of Col |
| Permanent Resident | 1<br>5.3%<br>7.7% | 0<br>0.0%<br>0.0% | 7<br>36.8%<br>26.9% | 2<br>10.5%<br>15.4% | 9<br>47.4%<br>1.2% | 0<br>0.0%<br>0.0% | 19<br>100.0%<br>2.3% |
| Other | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>0.0% | 1<br>20.0%<br>3.8% | 2<br>40.0%<br>15.4% | 2<br>40.0%<br>0.3% | 0<br>0.0%<br>0.0% | 5<br>100.0%<br>0.6% |
| No Response | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>0.0% | 2<br>100.0%<br>0.3% | 0<br>0.0%<br>0.0% | 2<br>100.0%<br>0.2% |
| TOTAL | 13<br>1.6%<br>100.0% | 2<br>0.2%<br>100.0% | 26<br>3.2%<br>100.0% | 13<br>1.6%<br>100.0% | 765<br>92.8%<br>100.0% | 5<br>0.6%<br>100.0% | 824<br>100.0%<br>100.0% |

Masters

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| US Citizen | 2<br>2.6%<br>50.0% | 0<br>0.0%<br>***.*% | 4<br>5.2%<br>33.3% | 2<br>2.6%<br>50.0% | 69<br>89.6%<br>94.5% | 0<br>0.0%<br>0.0% | 77<br>100.0%<br>81.9% |
| Permanent Resident | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 2<br>40.0%<br>16.7% | 0<br>0.0%<br>0.0% | 3<br>60.0%<br>4.1% | 0<br>0.0%<br>0.0% | 5<br>100.0%<br>5.3% |
| Other | 2<br>16.7%<br>50.0% | 0<br>0.0%<br>***.*% | 6<br>50.0%<br>50.0% | 2<br>16.7%<br>50.0% | 1<br>8.3%<br>1.4% | 1<br>8.3%<br>100.0% | 12<br>100.0%<br>12.8% |
| No Response | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% |
| TOTAL | 4<br>4.3%<br>100.0% | 0<br>0.0%<br>***.*% | 12<br>12.8%<br>100.0% | 4<br>4.3%<br>100.0% | 73<br>77.7%<br>100.0% | 1<br>1.1%<br>100.0% | 94<br>100.0%<br>100.0% |

Doctorate

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| US Citizen | 1<br>4.0%<br>100.0% | 0<br>0.0%<br>***.*% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 24<br>96.0%<br>85.7% | 0<br>0.0%<br>***.*% | 25<br>100.0%<br>62.5% |
| Permanent Resident | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 3<br>42.9%<br>27.3% | 0<br>0.0%<br>***.*% | 4<br>57.1%<br>14.3% | 0<br>0.0%<br>***.*% | 7<br>100.0%<br>17.5% |
| Other | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 8<br>100.0%<br>72.7% | 0<br>0.0%<br>***.*% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 8<br>100.0%<br>20.0% |
| No Response | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% |
| TOTAL | 1<br>2.5%<br>100.0% | 0<br>0.0%<br>***.*% | 11<br>27.5%<br>100.0% | 0<br>0.0%<br>***.*% | 28<br>70.0%<br>100.0% | 0<br>0.0%<br>***.*% | 40<br>100.0%<br>100.0% |

Table F-5

MINORITY CLASSIFICATION of CHEMICAL ENGINEERS by Degree and Sex
1980 Starting Salary Survey

| MINORITY STATUS | SEX | Bachelors | | | Masters | | | | Doctorate | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Men | Women | No Response | TOTAL | Men | Women | No Response | TOTAL | Men | Women | No Response | TOTAL |
| Black | 9<br>69.2%<br>1.4% | 4<br>30.8%<br>2.2% | 0<br>0.0%<br>0.0% | 13<br>100.0%<br>1.6% | 3<br>75.0%<br>3.9% | 1<br>25.0%<br>5.9% | 0<br>0.0%<br>***.*% | 4<br>100.0%<br>4.3% | 1<br>100.0%<br>2.6% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 1<br>100.0%<br>2.5% |
| American Indian | 2<br>100.0%<br>0.3% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>0.0% | 2<br>100.0%<br>0.2% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% |
| Asian | 15<br>57.7%<br>2.3% | 11<br>42.3%<br>6.2% | 0<br>0.0%<br>0.0% | 26<br>100.0%<br>3.2% | 9<br>75.0%<br>11.7% | 3<br>25.0%<br>17.6% | 0<br>0.0%<br>***.*% | 12<br>100.0%<br>12.8% | 10<br>90.9%<br>26.3% | 1<br>9.1%<br>50.0% | 0<br>0.0%<br>***.*% | 11<br>100.0%<br>27.5% |
| Hispanic | 10<br>76.9%<br>1.6% | 3<br>23.1%<br>1.7% | 0<br>0.0%<br>0.0% | 13<br>100.0%<br>1.6% | 3<br>75.0%<br>3.9% | 1<br>25.0%<br>5.9% | 0<br>0.0%<br>***.*% | 4<br>100.0%<br>4.3% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% |
| White | 604<br>79.0%<br>93.6% | 160<br>20.9%<br>89.9% | 1<br>0.1%<br>100.0% | 765<br>100.0%<br>92.8% | 61<br>83.6%<br>79.2% | 12<br>16.4%<br>70.6% | 0<br>0.0%<br>***.*% | 73<br>100.0%<br>77.7% | 27<br>96.4%<br>71.1% | 1<br>3.6%<br>50.0% | 0<br>0.0%<br>***.*% | 28<br>100.0%<br>70.0% |
| No Response | 5<br>100.0%<br>0.8% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>0.0% | 5<br>100.0%<br>0.6% | 1<br>100.0%<br>1.3% | 0<br>0.0%<br>0.0% | 0<br>0.0%<br>***.*% | 1<br>100.0%<br>1.1% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>0.0% | 0<br>***.*%<br>***.*% | 0<br>***.*%<br>0.0% |
| TOTAL | 645<br>78.3%<br>100.0% | 178<br>21.6%<br>100.0% | 1<br>0.1%<br>100.0% | 824<br>100.0%<br>100.0% | 77<br>81.9%<br>100.0% | 17<br>18.1%<br>100.0% | 0<br>0.0%<br>***.*% | 94<br>100.0%<br>100.0% | 38<br>95.0%<br>100.0% | 2<br>5.0%<br>100.0% | 0<br>0.0%<br>***.*% | 40<br>100.0%<br>100.0% |

1 -Count
100.0% -% of Row
2.5% -% of Col

Table F-6

CITIZENSHIP of CHEMICAL ENGINEERS by Degree and Sex
1980 Starting Salary Survey

| CITIZENSHIP | SEX | Bachelors | | | | Masters | | | | Doctorate | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Men | Women | No Response | TOTAL | Men | Women | No Response | TOTAL | Men | Women | No Response | TOTAL | |
| US Citizen | 628 | 169 | 1 | 798 | 62 | 15 | 0 | 77 | 25 | 0 | 0 | 25 | -Count |
| | 78.7% | 21.2% | 0.1% | 100.0% | 80.5% | 19.5% | 0.0% | 100.0% | 100.0% | 0.0% | 0.0% | 100.0% | -% of Row |
| | 97.4% | 94.9% | 100.0% | 96.8% | 80.5% | 88.2% | ***.*% | 81.9% | 65.8% | 0.0% | ***.*% | 62.5% | -% of Col |
| Permanent Resident | 12 | 7 | 0 | 19 | 5 | 0 | 0 | 5 | 5 | 2 | 0 | 7 | |
| | 63.2% | 36.8% | 0.0% | 100.0% | 100.0% | 0.0% | 0.0% | 100.0% | 71.4% | 28.6% | 0.0% | 100.0% | |
| | 1.9% | 3.9% | 0.0% | 2.3% | 6.5% | 0.0% | ***.*% | 5.3% | 13.2% | 100.0% | ***.*% | 17.5% | |
| Other | 4 | 1 | 0 | 5 | 10 | 2 | 0 | 12 | 8 | 0 | 0 | 8 | |
| | 80.0% | 20.0% | 0.0% | 100.0% | 83.3% | 16.7% | 0.0% | 100.0% | 100.0% | 0.0% | 0.0% | 100.0% | |
| | 0.6% | 0.6% | 0.0% | 0.6% | 13.0% | 11.8% | ***.*% | 12.8% | 21.1% | 0.0% | ***.*% | 20.0% | |
| No Response | 1 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 50.0% | 50.0% | 0.0% | 100.0% | ***.*% | ***.*% | ***.*% | ***.*% | ***.*% | ***.*% | ***.*% | ***.*% | |
| | 0.2% | 0.6% | 0.0% | 0.2% | 0.0% | 0.0% | ***.*% | 0.0% | 0.0% | 0.0% | ***.*% | 0.0% | |
| TOTAL | 645 | 178 | 1 | 824 | 77 | 17 | 0 | 94 | 38 | 2 | 0 | 40 | |
| | 78.3% | 21.6% | 0.1% | 100.0% | 81.9% | 18.1% | 0.0% | 100.0% | 95.0% | 5.0% | 0.0% | 100.0% | |
| | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | ***.*% | 100.0% | 100.0% | 100.0% | ***.*% | 100.0% | |

American Chemical Society

OFFICE OF THE
EXECUTIVE DIRECTOR

Raymond P. Mariella, *Executive Director*

1155 SIXTEENTH STREET, N.W.
WASHINGTON, D.C. 20036
Phone (202) 872-4455

Summer 1980

Dear Colleague:

For many years the American Chemical Society has been gathering information about starting salaries in chemistry and chemical engineering, by means of an annual mail survey of both member and nonmember graduates. We believe the data gathered has been very useful to chemists and chemical engineers, particularly as they start their careers, and that the publication of such data has a beneficial effect on salary levels. Also, the surveys provide information on the employment status of recent graduates. These surveys by the Society have gained a reputation for reliability and usefulness.

We urge you to participate in this survey as a service to your colleagues and profession. Please take a few moments now to fill out the enclosed questionnaire. No personal identification is required; the returns should be anonymous.

Please complete as many items in the questionnaire as possible, whether or not you have already accepted employment, and return it as soon as you can. We have enclosed a postage-paid envelope for this purpose.

A report on last year's starting salary survey was published in the CHEMICAL AND ENGINEERING NEWS Careers Issue (October 22, 1979, pp. 46-47). CHEMICAL AND ENGINEERING NEWS will publish a similar report in the fall of this year.

We thank you for your help and extend our very best wishes for every success in your professional pursuits.

Sincerely yours,

Raymond P. Mariella

Raymond P. Mariella

RPM/nb

Enclosures

AMERICAN CHEMICAL SOCIETY

Survey of Starting Salaries and Employment Status of
1980 Chemistry and Chemical Engineering Graduates

A. Highest degree earned (Check one.):

Bachelors 1[] Masters 2[] Doctorate 3[]

B. Field of highest degree (Check one.):

| | | | |
|---|---|---|---|
| Chemical engineering | 1[] | Organic chemistry | 7[] |
| Chemistry, general | 2[] | Pharmaceutical/medicinal/clinical chemistry | 8[] |
| Biochemistry | 3[] | Physical chemistry | 9[] |
| Agricultural/food chemistry | 4[] | Theoretical chemistry | 10[] |
| Analytical chemistry | 5[] | Polymer/macromolecular chemistry | 11[] |
| Inorganic chemistry | 6[] | Chemistry, other (specify) _____ | 12[] |
| | | Non-chemical (specify) _____ | 13[] |

C. Do you plan further advanced studies in fall 1980? (Check one.)

Yes, full-time 1[] Yes, part-time 2[] No 3[] ⟶ Go to Question E.

D. Field of further studies (Check one.):

| | | | |
|---|---|---|---|
| Chemistry | 1[] | Dentistry | 8[] |
| Other physical science, or math. | 2[] | Pharmacy, pharmacology | 9[] |
| Chemical engineering | 3[] | Business, management | 10[] |
| Other engineering | 4[] | Education | 11[] |
| Biochemistry | 5[] | Law | 12[] |
| Life science | 6[] | Social science, or humanities | 13[] |
| Medicine | 7[] | Other (specify) _____ | 14[] |

E. Age: _____

F. Sex: Male 1[] Female 2[]

G. Citizenship or visa status (Check one.):

U.S. citizen 1[] U.S. permanent resident visa 2[] Other visa (specify) _____ 3[]

H. Racial or ethnic group:

Black (not of Hispanic origin) 1[]
American Indian or Alaskan Native 2[]
Asian or Pacific Islander (of Chinese, Japanese, Korean, Filipino, or Subcontinental Indian origin) 3[]
Hispanic (of Mexican, Puerto Rican, Cuban, or Spanish origin) 4[]
White (not of Hispanic origin) 5[]

I. Post-graduation employment status (Check one.):

Accepted or continued full-time employment (excluding summer employment):
in a field of chemistry or chemical engineering 1[]
in a field other than chemistry or chemical engineering 2[]

Accepted a graduate assistantship or a postdoctoral or other fellowship 3[]

Not employed (or employed part-time or for the summer):
and seeking full-time employment 4[] ⟶ Please skip
and not seeking full-time employment 5[] to question P.

J. Professional or technical work experience prior to graduation (Check one.):

Less than 12 months (or none). 1[] 12 to 36 months. 2[] More than 36 months. 3[]

. How long have you been working for your current employer?

12 months or less. 1[] More than 12 months. 2[] ⟶ Go to question M.

L. How many firm offers of employment did you receive in a field of chemistry or chemical engineering? Specify number_____

. Employer classification (Check the one category which best describes your employer.):

Private industry or business:
Manufacturing
- Chemicals . . . . . 1[]
- Coatings . . . . . 2[]
- Food. . . . . 3[]
- Metals, minerals . . . . . 4[]
- Paper . . . . . 5[]
- Petroleum . . . . . 6[]
- Pharmaceuticals, personal care . 7[]
- Rubber . . . . . 8[]
- Other manufactures . . . . . 9[]

Non-manufacturing (e.g. mining, utilities, construction, etc.). 10[]

- University granting a doctorate in chemical science . . . . . 11[]
- Other college or university . . . . . 12[]
- High school or other school . . . . . 13[]
- Federal government (civilians only) . . 14[]
- State or local government . . . . . 15[]
- Hospital or independent laboratory. . . 16[]
- Other non-profit organization or research institute . . . . . 17[]
- Other (specify) . . . . . 18[]

. Annual salary: $_____ per year

. Geographic location of employment: State _____

. Did you obtain work experience as a cooperative student or intern during your undergraduate college training? Yes 1[] No 2[] ⟶ Stop here. Please return questionnaire in the envelope provided.

1. Was your work directly related to the field in which you obtained your bachelor's degree? Yes 1[] No 2[]

2. Were you paid for this work? Yes 1[] No 2[]

3. Was your work experience part of a formal college program? Yes 1[] No 2[]

4. What was the length of your total work experience? _____ months

5. During your work experience, how many hours per week did you typically spend on the job?
Less than 15. 1[] 15 to 30. 2[] More than 30. 3[]

6. How long were your individual work periods? _____ months

7. When were your work periods scheduled? (Check all that apply.)
Summers 1[] During school year: Semesters . . . . . 2[]
Quarters . . . . . 3[]
Special short terms . 4[]

8. Did you receive any offers of permanent employment as a result of your experience? Yes 1[] No 2[]

9. How many months did your work experience increase the time you spent to complete your degree requirements?
0 months. 1[] 1-9 months. 2[] 10-14 months. 3[] 15 months or more. 4[]

10. From what college or university did you receive your bachelor's degree?

_____

Please return within 7 days to the American Chemical Society
Room 312, 1155 Sixteenth St. N.W., Washington, D.C. 20036
Thank you.